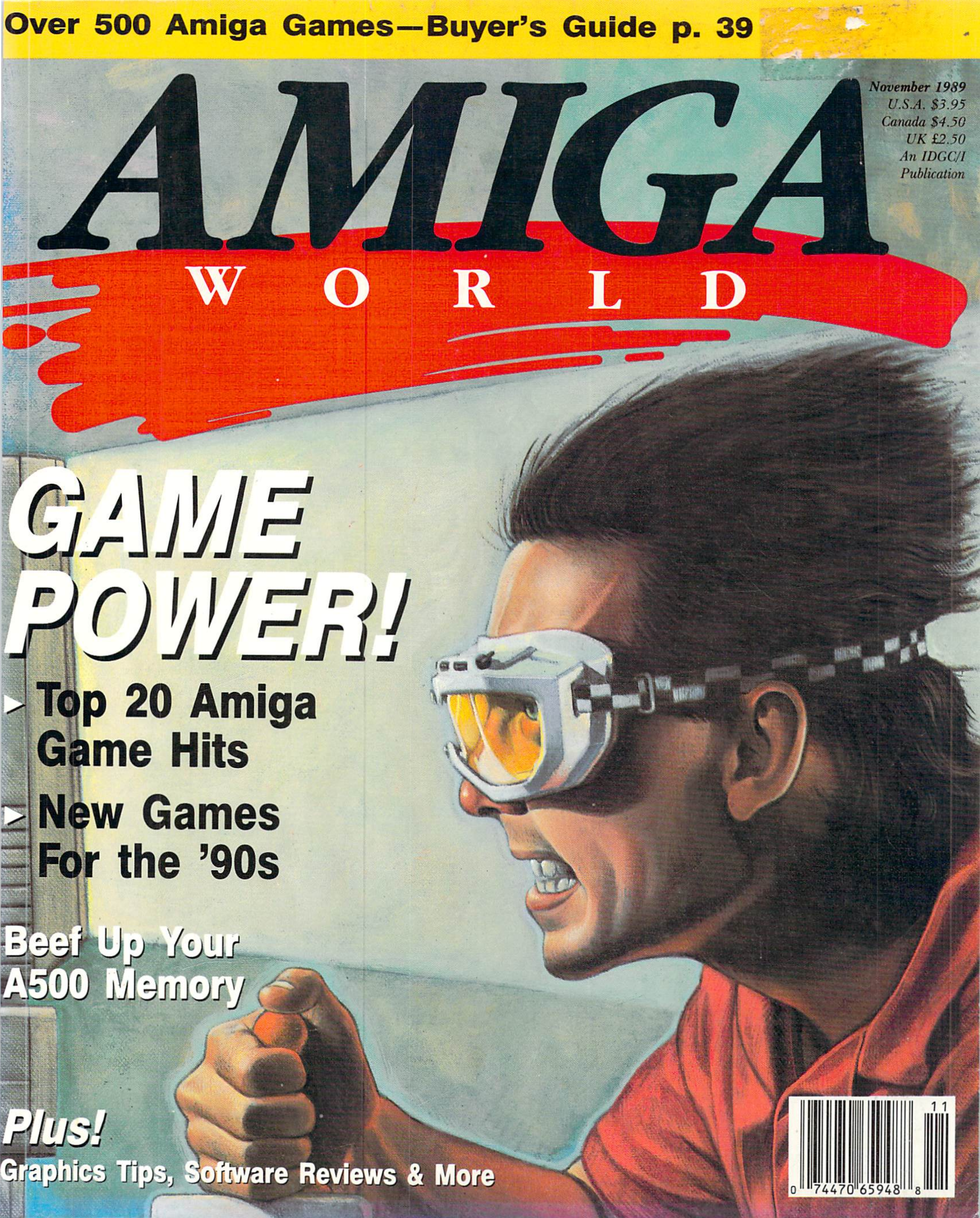


Over 500 Amiga Games—Buyer's Guide p. 39
AMIGA
WORLD
November 1989
U.S.A. $3.95
Canada $4.50
UK £2.50
An IDGC/I
Publication
GAME POWER!
Top 20 Amiga Game Hits
New Games For the '90s
Beef Up Your A500 Memory
Plus!
Graphics Tips, Software Reviews & More
11
0 74470 65948 8

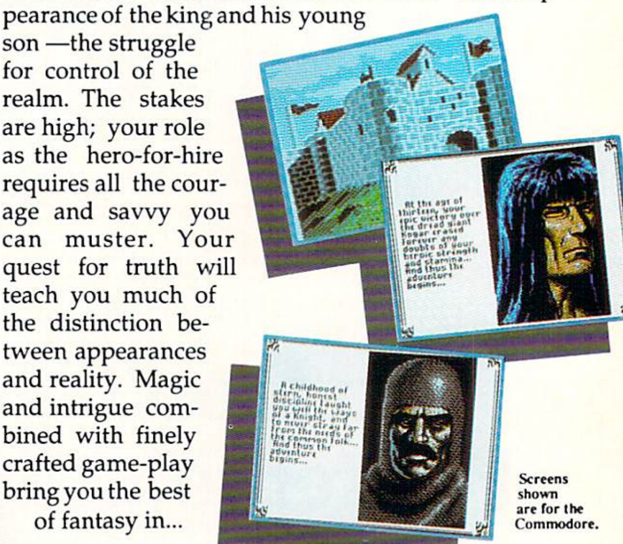


Arcade adventure at its finest...

Fast-paced, exciting combat demands the use of all your wits and endurance to best a world teeming with assassins, wizards and monsters. Experience captivating graphics of an unprecedented calibre. Relentless opponents will hone your combat skills to a razor's edge. A simple yet powerful menu and icon interface provides effortless interaction with the world and its people, while the incredibly smooth animation presents a continuous panorama of action and adventure.

Fantasy role-playing at its best!

Astonishing realism is yours through scores of unique characters and sophisticated conversations. Immerse yourself in the sights and sounds of an ancient world embroiled in turmoil—the disappearance of the king and his young son —the struggle for control of the realm. The stakes are high; your role as the hero-for-hire requires all the courage and savvy you can muster. Your quest for truth will teach you much of the distinction between appearances and reality. Magic and intrigue combined with finely crafted game-play bring you the best of fantasy in...



Screens shown are for the Commodore.

...Times of Lore

- **Stunning graphics and animation**
- **Fast-paced combat action**
- **Dynamic conversations**
- **Compelling plot**

To get your copy of Times of Lore, either

1) visit your local retailer,

2) call 1-800-999-4939 8am to 5pm EST to order by VISA/ MC, or

3) mail check (U.S. $) or VISA /MC#, cardholder name and expiration date to Origin. All versions $39.95 plus $2.50 shipping and handling. Allow 1-2 weeks for delivery.

Try it! A demo disk of Times of Lore is now available for the Commodore 64/128K. Send $2.50 to Origin for yours and credit it towards a direct order purchase.



Available for the IBM-PC/ Tandy/ compatibles, Apple II Series, Commodore 64/128, Amiga and Atari ST.



136-B Harvey Road,
Londonderry, NH 03053

Times of Lore is a trademark of Origin Systems, Inc.

Circle 21 on Reader Service card.

VOLUME 5, NUMBER 11 NOVEMBER 1989

·C·O·N·T·E·N·T·S·

Amiga entertainment software has grown so fast that it is, literally, almost impossible to keep track of it. To help all Amiga game enthusiasts, **AmigaWorld** *has added a separate Games Buyer's Guide (covering more than 500 titles) to our annual November Games Special—just in time for the Holiday shopping season!*

MYSTERY SWEEPS CONSOLATION WINNERS

If you weren't one of the Finalist Prize winners (see last month's issue) in our **Mystery Sweepstakes**, maybe you did win one of the more than 140 Consolation Prizes. You might just get lucky and see your name on **page 76.**

COVER ILLUSTRATION BY EARL KELENY

STEPHEN ROBBINS, *Publisher*

DOUGLAS BARNEY, *Editor-In-Chief*
DAN SULLIVAN, *Executive Editor*
SHAWN LAFLAMME, *Managing Editor*
LOUIS R. WALLACE, *Senior Editor, Technology*
LINDA J. BARRETT, *Acquisitions Editor*
BARBARA GEFVERT TYSON, *Review Editor*
JAN JACKSON, *New Products Editor*
TIM WALSH, *Technical Editor*
GENE BRAWN, BILL CATCHINGS, DAVID T. MCCLELLAN,
MARK L. VAN NAME, *Contributing Editors*

HOWARD G. HAPP, *Art Director*
ROGER GOODE, *Assistant Art Director*
ANNE DILLON, *Designer*
LAURA JOHNSON, *Designer*
ALANA KORDA, *Production Supervisor*

KENNETH BLAKEMAN, *National Advertising Sales Manager*
MICHAEL MCGOLDRICK, *Sales Representative*
BARBARA HOY, *Sales Representative*
HEATHER PAQUETTE, *Associate Sales Representative,*
InfoMarket Sales, 1-800-441-4403, 603-924-9471
LINDA M. BUSSIERE, *Advertising Coordinator*
GIORGIO SALUTI, *Associate Publisher, West Coast Sales 1-415-328-3470*
3350 W. Bayshore Road, Suite 201 Palo Alto, CA 94303
SHELLEY HARMON, *Associate Sales Representative,*
InfoMarket Sales, 415-328-3470

WENDIE HAINES-MARRO, *Marketing Manager*
LAURA LIVINGSTON, *Marketing Coordinator*
MARGOT L. SWANSON, *Advertising Assistant*

SUSAN MAIZEL, *Customer Service Representative*



ROGER J. MURPHY, *President*
STEPHEN D. TWOMBLY, *Executive Vice President/Publishing Director*

DENNIS S. CHRISTENSEN, *Vice President of Manufacturing/Operations*
LINDA PALMISANO, *Typesetting Manager*
DEBRA A. DAVIES, *Typographer*

SUSAN GROSS, *Corporate Production Manager*
LYNN LAGASSE, *Manufacturing Manager*

LINDA RUTH, *Single Copy Sales Director*
JOHN T. CHILDS, *Single Copy Sales Manager 800-343-0728*
DEBBIE WALSH, *Newsstand Promotion Manager*

PAUL RUESS, *Circulation Director 800-365-1364*
PAM WILDER, *Assistant Circulation Manager*
WILLIAM M. BOYER, *Director of Credit Sales & Collections*

AmigaWorld (ISSN 0883-2390) is an independent journal not connected with Commodore Business Machines, Inc. *AmigaWorld* is published monthly by IDG Communications/Peterborough, Inc., 80 Elm St., Peterborough, NH 03458. U.S. subscription rate is $29.97, one year; $46.00, two years; $64.00, three years. Canada $38.97 (U.S. funds), one year only. Mexico $38.97, Foreign Surface $49.97, Foreign Airmail $84.97 (prepayment is required on Foreign Surface and Airmail subscriptions in U.S. funds drawn on U.S. bank). All rates are one-year only. Second class postage paid at Peterborough, NH, and at additional mailing offices. Phone: 603-924-9471.

Postmaster: Send address changes to *AmigaWorld*, Subscription Services, PO Box 58804, Boulder, CO 80322-8804. Nationally distributed by Kable News Co. *AmigaWorld* makes every effort to assure the accuracy of articles, listings and circuits published in the magazine. *AmigaWorld* assumes no responsibility for damages due to errors or omissions.

CHIEF CONCERNS

A call to action.



IT HAS BECOME a familiar and all too disturbing adage: "Commodore has the best engineering and the worst marketing." Everybody, it seems, knows what Commodore has done wrong, and not suprisingly, most of these same folks have advice for Commodore.

Everybody is right. Commodore needs help, and it ain't their engineering department that's ailing. The company has utterly failed to give the best PC in the business adequate visibility. The one million Amiga owners were resourceful enough to find out about the machine on their own, and made the wise choice to buy one.

The noises that are starting to come from Commodore are encouraging. The firm is committed to increasing the Amiga's visibility, working with third parties to make sure important half-finished products make it to market, and is working on some exciting new technologies that will keep the Amiga clearly ahead of the PC pack.

The firm also has a new, highly motivated crew with impressive resumes. These guys have been hard at work. They are planning an expanded and more consistent ad campaign, are insuring that dealers are competent, and are committed to gaining the ever-precious customer mindshare.

I think it will work. I wouldn't have left the safe confines of the general PC market if I didn't believe that Commodore has a real shot at the big time.

The time is now for Commodore to make its move. The IBM and Apple PR machines are cranked up, and are attacking areas that the Amiga dominates, such as multimedia, desktop video, and animation. Unfortunately, the naive computer press is giving the world the impression that these firms are inventing these categories, and that these are "future" technologies.

Hogwash! We all know that the Amiga has been excelling in these areas for years. It is up to Commodore to let the rest of the world in on this secret. If it doesn't, then customers will buy Macintoshes for advanced applications such as video. Then they'll watch helplessly as the machine sucks up all their cash reserves, only to bog down while processing the simplest of images.

Here's what Commodore needs to do more of. Fortunately, it is already starting to crackle. President Harry Copperman recently paid personal visits to the major trade publications that are now discovering these new application areas. You may be wise enough not to read these magazines, but about a zillion potential customers do.

He also went armed with a strategy. He brought a long list of customers (maybe even you!) who can demonstrate that the Amiga is the best machine ever made. Loaner machines are being sent out so these newshounds can see for themselves how pathetic other machines are when compared to the Amiga.

Commodore also needs to respond every time the press ignores the Amiga when writing about applications that originated on the Amiga. It makes me sick to see Apple get the credit for inventing multimedia. It is even more sickening to hear some PC review lunkhead froth at the mouth over a black-and-white animation package for the Mac.

We reached the height of ridiculousness when the NEXT machine from Steve Jobs was introduced. Here was an example of hero worship at its worst. Jobs spends years developing a machine that is a blatant rip-off of the Amiga, and proceeds to get more press coverage than Gorbachev.

The only difference between a NEXT machine and an Amiga is that the Amiga has color, software applications, users, and actually works. The NEXT machine, meanwhile, costs five to ten times as much, has an installed base of about 25, and, let's face it, really isn't finished yet.

The most painful instances, though, involve more generic technologies like multitasking. IBM and Microsoft grabbed countless gobs of headlines with OS/2. After years of hype, OS/2 proceeded to fall flat on its multitasking face. Where was the Amiga during all this? Patiently and quietly multitasking away.

Commodore also has to convince the major PC software vendors that one million machines equals opportunity. Some of these jokers are writing for true niche machines like Sun workstations (no more than 200,000 installed, I'd bet) and the NEXT machine (you could fit its installed base in a Volkswagen Beetle). Participation by major vendors would mean mainstream software for the Amiga, and a shot at the huge general-purpose business market that continues to suffer under the yoke of IBM PC tyranny.

Come on, Commodore. The Amiga deserves better. Fortunately, we think with the new crew, it is starting to get it! ■

—Doug Barney

A3001

BREAKING THE SPEED BARRIER

New 25Mhz 68030 Upgrade Kit from GVP Puts Tomorrow's Performance in Your A2000 Today

SPEED 25Mhz 68030 CPU and 68882 FPU with fully implemented BURST mode 32-bit memory. An order of magnitude faster than A2500.

POWER Up to 8MB of State-of-the-art NIBBLE MODE 32-bit DRAM memory averages zero waitstates during 68030 BURST mode.

EFFICIENCY Built-in Hard Disk Controller direct on 32-bit bus keeps ALL A2000 expansion slots free even when our hard disk is installed!

QUALITY Backed up by GVP's unique full one year warranty.

25 Mhz 68030 Accelerator

8MB 32-bit Wide Ram Expansion

IMPACT Hard Disk Drive

A3001, 25Mhz 68030/68882 Upgrade Kit Technical Highlights:

- Asynchronous 68030 design allows high clock rates and GENLOCK compatibility.
- Factory installed 25Mhz 68882 floating point processor, twice as fast as the older 68881 chip.
- Fully DMA-able AUTOCON-FIGured 32-bit wide memory. Up to 8MB.
- Built-in AUTOBOOTing hard disk controller supports up to two 40 or 80MB drives (11/19ms access).
- Selectable 68000 fall-back mode for full floppy-based game compatibility.

Amiga is a registered trademark of Commodore-Amiga Inc.
IMPACT and GVP are trademarks of Great Valley Products, Inc.

GVP

GREAT VALLEY PRODUCTS INC.

For more information, or for your nearest GVP dealer, call today. Dealer inquiries welcome.

FAX (215) 889-9416 • (215) 889-9411 • BBS (215) 889-4994

225 Plank Ave., Paoli, PA 19301

Dealers Circle 245 on Reader Service Card

Consumers Circle 127 on Reader Service Card

REPARTEE

Comments, complaints, and concerns from AmigaWorld *readers.*

DISKMASTER DEVOTEE

I WAS SHOCKED and disappointed to see Bill Catchings' and Mark Van Name's haphazard and misleading review of DiskMaster, one of the best Amiga disk-utility programs available, in your September '89 issue [info.phile, p. 56].

The authors state that DiskMaster cannot display a file in hex. This is not true. By clicking the right mouse button on the READ command, the command is switched to HEXREAD, which displays a file in hex with ASCII interpretation at the right. Both the regular file reader and hex file-reader functions provide convenient, smooth mouse scrolling as well as scrolling with the up and down keys.

While it is true that DiskMaster does accept the convenient "*" wild card for pattern matching (as ARP does), it *also* accepts the strange AmigaDOS "?" and "#?" pattern definitions, too.

The authors also state that DiskMaster is less robust than CLImate, because they found themselves "losing control" of DiskMaster while the program hung. I will admit that I have seen this bug, but as a very heavy user of DiskMaster, I have only seen this problem about three or four times in almost a year of use. I don't consider it a serious problem. I think it is misleading to characterize DiskMaster as a buggy, unreliable program.

I admit that the documentation could stand some improvement. No doubt this is why the authors missed the HEXREAD function and did not realize that the program can use wild cards.

DiskMaster provides a great deal of easy user programmability of its many features, functions, and device gadgets. It has greater display capacity with real-time scroll gadgets in both vertical and horizontal directions than any other similar program I've seen. It gives you a one-stop source for almost any disk and file operations imaginable.

René LeBlanc
Scottsdale, AZ

We have heard from a number of users who like DiskMaster. We also agree that it has a lot of complex features. The problem with DiskMaster, as René LeBlanc concedes, is that the six-page manual does not adequately describe these features.

We also view bugs that cause utility programs to hang as very serious. These two factors make DiskMaster unsuitable for the average user.

—Bill Catchings and Mark Van Name
Contributing Editors

AMIGA GRAPHS

IN THE REPARTEE section of your August '89 issue, Dr. Fred Klein notes the lack of scientific plotting and graphics packages for the Amiga ["Scientific Graphics, p. 8]. I would like to point out that it is not simply a null field.

MaxiPlan Plus, an Amiga spreadsheet, can produce graphs. Graphics files created by MaxiPlan conform to the Amiga's Interchangeable File Format (IFF) protocol, and hence are portable to all conforming programs, such as DeluxePaint, excellence!, or PageStream.

MaxiPlan Plus has much greater graphing capability than the Macintosh program Excel (v. 1.5). Yet, I know of no Amiga equivalent to the Macintosh program Cricket Graph. Hence, I would like to second Dr. Klein's call for more scientific word processing, plotting, and data-analysis software for the Amiga. After all, it is the capability of the Amiga as a function of cost that makes the machine attractive for scientific work.

Frank Murray, Ph.D.
Claremont, CA

THE MISSING LINK

YOUR ARTICLE ON ARexx ["ARexx: The Missing Link," Aug. '89, p. 30] was right on target. The Amiga is perfectly suited to hypermedia, and if Commodore can act quickly to implement ARexx in the system software, I think that the Amiga will enjoy a new level of recognition by professional non-Amiga users.

Robert Anderson
Hamilton, Ontario
Canada

KEYBOARD ENTHUSIAST

I APPRECIATE THE benefits of having both a Command Line and Graphic User Interface. I would like to make a recommendation that I believe would make Amiga applications easier to use: allow keyboard selection of options in requester boxes. For applications that rely on the keyboard, this would prevent having to take your hand off the keyboard to select an option with the mouse.

One example is IBM's Common User Access (CUA) method, which is their interface guideline for the Systems Application Architecture (SAA). It is very similar to the Apple Macintosh interface; operations can be performed with either the mouse or the keyboard.

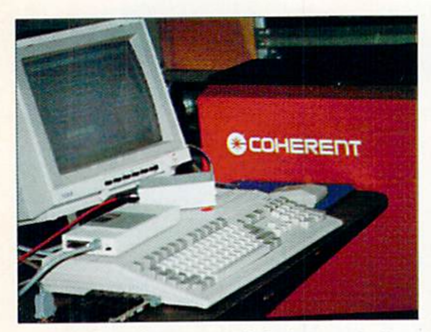
I believe that giving users the alternative of keyboard selection would improve the Amiga interface.

W. James Roscoe
Regina, Saskatchewan
Canada

Send your letters to: Repartee, *AmigaWorld* Editorial, 80 Elm St., Peterborough, NH 03458. Letters may be edited for space and clarity. ■

NOTEPAD

Compiled by Linda Barrett



Even lasers need Amiga control.

Lights in Action

EVERY EVENING AT dusk, visitors to Sea World of Texas file into the park's circular amphitheater. Here, where just hours earlier guests thrilled to physical feats of water skiers in the lake below, they now prepare to witness the technical power of the Amiga. Most, however, never even realize the multitaskers are in charge. They have come to enjoy a laser light show and musical performance.

From the island in the center of the lake, a pair of two-meg Amiga 500s direct the production. The show begins when audio tape, embedded with SMPTE time code (a frame-numbering system), begins to roll. A SMPTE-to-MIDI converter reads the code into a MIDI interface, which sends it on to the Amiga. The Amiga passes the signal to a digital-to-analog converter, and on to two specialized pieces of hardware developed by Laser Entertainment Technologies' Randy Johnson: a scan amplifier and a scan head. The scan head houses a group of mirrors and a tiny control motor called a galvanometer. When a laser beam is directed into the scan head by a state-of-the-art 32-watt argon Coherent Innova laser, it bounces from mirror to mirror and then out into space.

Software running on the Amiga triggers the galvanometer to adjust the mirrors' positions and thus change the direction of the beam. Programmed with tables of data representing the x and y positions on a grid, the software puts together sequences of positions (depending on time-code specifications) to form shapes. The Amiga outputs these sequences in rapid succession, triggering the galvanometers to line up each mirror with any x, y positions specified by the computer. Tracing shapes faster than the eye can detect, the beam projects images onto the clouds. The laser can draw letters and fairly complex pictures—even animations.

Software developer Adam Harris said that he and partner Randy chose the Amiga for this project for a number of reasons. They wanted their system to be easy to use, and felt that the Amiga's environment was ideal. Fast processing capabilities, color, and an easily accessible bus were other drawing points. The Mac, says Adam, offers nothing more than the Amiga, and costs twice as much.

Although the Sea World system is set up with SMPTE tape to allow for an automated presentation, the MIDI interface makes it possible for a musician to control the laser simply by playing a synthesizer. Nicholas MacConnell, president of MindLinks in Del Mar, California, which distributes Laser Entertainment's system, is excited about its possibilities. "The Amiga is at the head of a revolution," he said, "a breakthrough in the performing arts." *—BGT*

Amiga Upon Avon

THE TEMPEST **OPENED at Sonoma State University with howling winds, thrashing waves, and an impressive cast. Unlike Shakespeare's original production, Associate Professor of Theater Arts Judy Navas' starred an Amiga 1000, an A500, two video cameras, three eight-foot by ten-foot rear projection monitors, Mandala (Very Vivid), Invision (Elan Design), the LIVE! digitizer, a Casio synthesizer, in addition to live actors.**

The production was a group effort. Judy prepared most of the special effects herself on her Amiga. Consultant Rob Terry created the opening storm sequence using Invision, LIVE!, and clips from B-grade seafaring movies.

In the play's eight performances, actors triggered music and images via Mandala to enhance their lines. "This technology has genuine magic," Navas says. "It's a revolution that's going to change the way we look at performance."

Mandala is an unsupported, buggy, but extraordinary software and hardware interface for multimedia, interactive performance art. Mandala allows an on-stage performer, while in a video camera's field, to trigger animations, sound effects, and music, "paint" on the screen, or even be imposed themselves into other live, taped, or computer-generated environments.

Unfortunately for other performers, Very Vivid has taken Mandala off the market. "This is a major loss to the Amiga," says Judy. "I've always been frustrated by the clunkiness of the theater in presenting the ethereal. With this technology, for the first time on stage, you can actually see the process, in action, in the moment. For the first time in my 20 years of college productions, my imagination could find concrete images that others could see."

Her next Amiga/Mandala production will be an interactive-surrealist performance combining T.S. Eliot's "The Love Song of J. Alfred Prufrock" with photographs of the French painter, Magritte. *—Sue Albert*

RAMBO® III

NOT MILITARY. NOT MERCENARY. AND YOU'RE DEFINITELY NO TOURIST...

RAMBO® III

TAITO™

NOT MILITARY. NOT MERCENARY. AND YOU'RE DEFINITELY NO TOURIST...

SOVIET COMMANDER: "WHO ARE YOU?"

RAMBO: "I'M YOUR WORST NIGHTMARE."

Remember that line? Now YOU can deliver it to the enemy—in person. Thirty miles over the Afghanistan border, Soviet forces are torturing your friend and mentor, Colonel Trautman. You're the only man alive with enough guts, brawn, and resourcefulness to single-handedly rescue the man who taught you how to fight. Every Soviet commando, tank, and attack chopper in the sector is on your tail. It's the ultimate contest for the ultimate fighter.

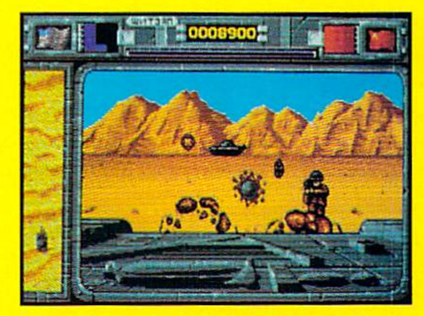
Amiga game screens.



It takes more than muscle to de-activate electronic gates, cross treacherous mine fields, and find the keys to Trautman's cell.



Ever fly one of these things? With the enemy breathing down your back, that Hind chopper's the best way out of this hell hole.



It's just you and your hijacked tank against anti-tank missiles and choppers. Sight in and rearrange that balance of power!



If you cannot find this product at your local retailer, Visa/Mastercard holders can order direct anywhere in the United States by calling toll free 1-800-663-8067.

Circle 112 on Reader Service card.

Centaur puts the





Educational Paint Program with built-in Coloring Book

Satisfied customers are writing in about My Paint:
"My kids love this program because it's so easy to use. The digitized sounds are great!"
Santee, CA

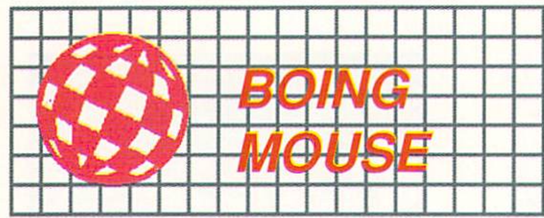
"This is an exceptionally well thought out product. My son loves it. Thank you!"
Highland Lakes, NJ

"The graphics are wonderful - The children love it and so do I."
Jamaica, NY

Now available: Even more fun for educator approved My Paint! New coloring disks with all new characters, objects, animals and sounds.

My Paint — $49.95
Coloring Disks sold separately

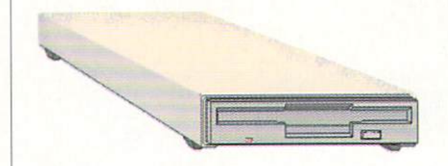
DATA DISKS — $29.95



Smooth Optical Mouse for all Amigas
- Double the resolution of the standard mouse for better precision
- Supports X-Windows, Amiga UNIX and Workbench 1.4
- Only Optical Mouse available for the Amiga
- No moving parts to wear out
- Smooth mouse movement

$149.00

CSI 3200 Silent Drive with...



B.A.D.

CSI 3200 SilentDrive

- Doesn't make the annoying click when disk drive is empty
- Small compact design in sturdy metal case
- Compatible with all Amigas
- Low Power consumption
- On/Off switch for saving memory
- Includes B.A.D. Disk Optimizer Software

SilentDrive with B.A.D. $195.00

Also available, the CSI2200 Internal drive for the Amiga 2000

Make your disks fly with B.A.D.

- The Ultimate Disk Optimizer
- Decrease Disk Access Time Up to 500%
- Works with Floppies AND HardDrives
- Supports Multiple Partitions
- FAST CLI Directory Access
- Incredible Workbench™ Performance
- 100% AmigaDOS Compatible
- Works with the FAST FILING SYSTEM

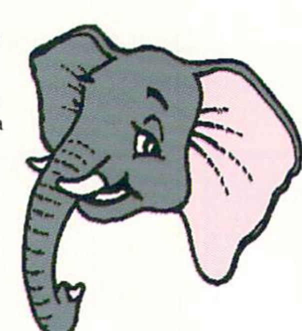
B.A.D. analyzes, restructures, and processes ANY AmigaDOS disk such that permanent speed increases will be realized. This is NOT a RAM cache based system!

B.A.D. Separately — $49.95

MiniMax

...more memory for your **Amiga**

Get more out of your Amiga 500 with more memory. MiniMax internal RAM expansion allows you to expand your Amiga 500 up to a total of 2.3 megabytes internally!



- Available in 0K, 512K, 1 Megabyte or 1.8 MB
- INTERNAL in your Amiga 500
- Keeps your expansion slot on side free
- Expansion RAM disable switch, for older software programs incompatible with extra memory
- RAM-test software included
- Realtime clock on board with battery backup
- Amiga automatically recognizes extra memory
- Low Cost

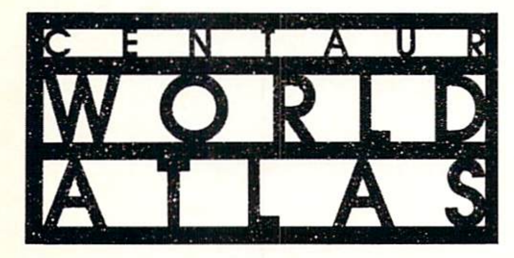
PRO-NET — PRO-BOARD

The complete professional solution from schematic to PCB!

PRO-NET
- Menu Driven
- Complete set of powerful schematic capture commands
- Variable logic template size that follows MIL-STD-860
- Provides automatic device and section number assignment with zone control.
- Automatic page reference generation and insertion through post processing.
- Weight assignments which can be hidden.
- Dot Matrix, Laser Printer, Plotter and Gerber Plotter support.

PRO-BOARD
- PCB library part accuracy to 0.001 inch.
- 0.025 PCB grid.
- Supports 1, 2 or 4 layer PCB with silk screen.
- Single line auto route, 12 mil trace, 13 mil spacing.
- Provides wide traces.
- Component placement done by positioning DIP, SIP, 2-PADS and library parts.
- Complete set of powerful PCB layout features accessible through IFK's.

fun in functional!





With World Atlas, a fun and educational utility comes to the Amiga. More than an atlas, this program gives you direct access to information and details on more than 170 countries, as well as the 52 United States. For students, educators, travelers, business executives, or just armchair explorers, World Atlas will provide an incredible wealth of knowledge and entertainment.

- Discover each country's history, language, population, customs and more!
- Choose by country and state list or world maps.
- Time sectors and earth facts too!

$59.95

PROFESSIONAL TECHNIQUES

FOR

DPAINT III

VIDEO CASSETTE

With this one hour video tape of tutorials, tips and techniques, the new user, as well as the seasoned professional, is easily shown how to best utilize Deluxe Paint® III's tools to achieve spectacular effects with professional results. Amiga artist Jeff Bruette will guide you step by step through DPaint's features including:

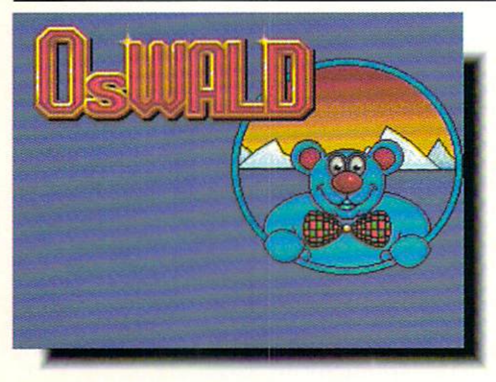
- Cel Animation
- New Tools
- the "Move" Menu
- Shortcuts
- Combining Effects
- 3-D Perspective

and More

Also features Deluxe Paint creator Dan Silva.



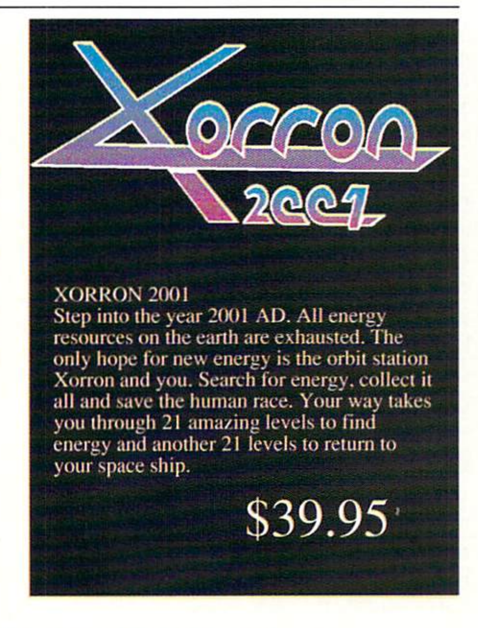
$29.95



Oswald is a fast paced and entertaining action strategy game. Oswald's a cold and hungry blue bear jumping across the ice floes. You help him avoid the hazards of the freezing north sea on route to his goal.

- A wide range of digitized sounds
- Interesting adversaries
- Humorous animation

$39.95



XORRON 2001

Step into the year 2001 AD. All energy resources on the earth are exhausted. The only hope for new energy is the orbit station Xorron and you. Search for energy, collect it all and save the human race. Your way takes you through 21 amazing levels to find energy and another 21 levels to return to your space ship.

$39.95





LEONARDO

Leonardo is a thief who steals nearly everything he can get his hands on. Follow Leonardo's way through fifty different banks, museums and warehouses. Help Leonardo avoid the numerous alarm systems, guards and ghosts on his criminal trips.

$44.95

QUASARSOUND

The ultimate stereo sampling/sound editing system! Save real-world sounds in IFF format for use in any music program that supports IFF or 8SVX sounds.

- High and Low Pass filter operations
- Can play and record up to 4 tracks in memory
- Easy to use user interface with visual editing
- Powerful editing features, including cut and paste operations
- POWERFUL RECORD TO DISK FUNCTION: With DISC-RECORDING, you can record sampled sounds longer than the capacity of your internal RAM on up to 4 disks at the same time to create auto-boot PlayDisks.

$59.95







CENTAUR

Centaur Software, Inc.
P.O. Box 4400
Redondo Beach, CA 90278
(213) 542-2226

Dealers circle 239 on Reader Service card. Consumers circle 200 on Reader Service card.

REVIEWS

DIGI-PAINT 3

Number three—the second—

is first rate.

By Roger Goode

IT'S TIME TO tune up your imagination and set your creativity free, kids, because Digi-Paint 3 is here, and it brings such power and ease to Hold-And-Modify (HAM) painting that it will quickly become a trusted friend.

NewTek's original Digi-Paint was the first program to break the color barrier, allowing simultaneous use of all of the 4096 colors available to the Amiga. It also introduced us to some of the now-familiar headaches associated with HAM painting: color fringing, huge demands on memory, and long waits for some operations. Since that time, a number of competing products have been introduced, each making more impressive claims than the last. Now, those competitors may want to head back to the drawing board, because Digi-Paint 3 is hard to beat.

No, there never was a Digi-Paint 2: the 3 in Digi-Paint 3 refers to the number of man-years that went into developing the program. From the look of things, it was time well spent. With the addition of new tools, modifications to the old tools, and a new interface—designed by Amiga artist Jim Sachs—that makes the program a joy to use, Digi-Paint 3 is an entirely different package. (NewTek offers a $29.95 upgrade deal to Digi-Paint users, and a $49.95 trade to owners of other paint programs.)

IT'S IN THERE

Written entirely in assembly code, Digi-Paint 3 is compact, and its support of 60820 processors makes it the fastest HAM program yet. New features include 3-D texture mapping, improved colorizing, super bitmaps, overscan and ARexx support, anti-aliased fonts, and compatibility with Haitex's stereo-vision gogs, X-Specs 3D.

In the package are two non-copy-protected disks: the program disk plus another containing some tutorial art and an image-processing utility called Transfer 24 that Digi-View (NewTek) users will recognize. Transfer 24 is great for making overall changes (such as contrast, brightness, and saturation adjustment), and for making color separations, changing file formats, and resizing pictures.

The expanded 127-page manual is filled with useful tutorials, tips and techniques, and a complete set of references and appendicies. It is broken down to nine fully illustrated chapters that detail the use of all tools and menus, and provides useful discussions on everything from how HAM works to programming compatibility with ARexx. While the program requires just 512K to run, at least one megabyte of RAM is preferable.

IN ONE BOX AND OUT THE OTHER

The default toolbox occupies the lower quarter of the working screen. Along with its strip of 16 basic (register) colors, a current color bar, and an area for defining color ranges along the top, this toolbox provides basic tools for most of the usual paint operations: freehand draw, straight lines, polygons, rectangles, circles, and ellipses. There's a fill button that works with each of these, and a full range of brush shapes with a flexible, easy-to-use sizing option. Beneath these tools are buttons for the custom-brush grabbing tool, a magnifying option for detailed work, and the indispensable undo and repeat options.

The nicest features on the toolbox are buttons that call up the other three toolboxes: the Palette, Text Rendering, and Controls boxes. Each of these toolboxes occupies the same portion of the screen that the default box does, and each has gadgets that allow you to toggle between them quickly and easily. This is a particularly nice design feature; it keeps your work space uncluttered and provides a logical and intuitive method for dealing with the complexities of HAM painting. All of the boxes contain undo and repeat buttons and the color strip, so you need not return to the default toolbox every time you use them.

Digi-Paint 3's Palette box is the nicest I have seen on a HAM program. While retaining the 16-color register strip at the top, it expands to display a full-value range of each color directly below the register. A standard RGB slider control to the immediate right, with a numeric value readout of the currently selected color, makes precise color adjustment a breeze. To the right of that are the 4096 color-selection panels from the original Digi-Paint that change dynamically as you move around in them, allowing you to quickly choose a color for fine tuning in the RGB sliders. Finally, there is a Pick button that lets you choose a color directly from the picture screen so you do not have to waste time trying to duplicate colors you have used.

The Text Rendering toolbox lets you add titles and captions to your graphics.



Get on the ball in the Controls toolbox to determine the transparency of objects in your picture.

Just type letters into the bar on the right side of the toolbox, choose a font and point size from the menu, pick a color, and click on any of three buttons for Bold, Italic or Underlined styles. When you are all set, click the Text to Brush icon and watch the string (or as much as will fit) render at the top of the screen and then attach itself to your brush. Then, simply place the text brush where you like it and click. Two degrees of smoothing help give your text a professional look, and best of all, once the text is attached to your brush it can be enhanced and modified with any paint mode and with the options in the controls toolbox.

Take Control

Controls is the largest of the four toolboxes. Most of its display is devoted to two major functions, Transparency and Texture Mapping, both of which are wonderfully conceived and surprisingly easy to use. The Transparency control is centered around a large boxed display of a ball, representing the shape that will be drawn to the screen. Above this box are four icons (labeled Point, Vertical, Horizontal, and No Hotspot) representing the types of hotspots you can apply to a paint operation. Clicking on one of these icons causes a hotspot locator to appear on top of the red ball. (If you choose No Hotspot, the ball graphic is blanked out to represent an overall tint.) You can move the locator around in the box to determine where the center of transparency or opacity will spread from. To determine the degree of tranparency at the designated hotspot and at the edges of your drawn shape, you adjust the two sets of sliders on either side of the ball. The sliders offer calibrated degrees of transparency for fine tuning, and both are flanked by three icons that deliver 100%, 50%, and 0% transparency. These icons, well-designed graphics that show the ball with various degrees of transparency at either the center or the edges, give the interface an intuitive feel. Once you have set your transparency parameters, just paint to the screen. If you don't like the effect, click undo, make some adjustments, and click the repeat button to try again. This tremendous flexibility is found throughout the program.

A Brush With Effects

The Warping and Texture Mapping control is a two-in-one tool. To use it, you must first grab a custom brush from the screen, copy it to the brush buffer, and select TxMap from the Modes menu. This sequence enables Warping. The Warping control is set up similar to the Transparency control, with a boxed graphic of a grid-mapped ball, a slider on the left to set the degree of warp, and three icons on top for choosing vertical, horizontal, or point warping. Selecting an icon places a bar or point, which you can move to determine where the warping will be the most pronounced, on the grid ball display. The slider lets you set the amount of warping to the brush incrementally from none to extreme, and each of the three buttons alongside it graphically depict how much warping they will induce. This well-designed interface allows for the most intuitive use of an option that could otherwise be confusing.

Once you have set the Warping contols, you can move on to the fun part. Texture Mapping works with any custom brush, including text brushes, and with all shape tools, filled and unfilled. Choose a shape tool—freehand, circle, rectangle, or any other—and draw on the screen at any size. In a few moments your texture-mapped figure is rendered to the screen, complete with as much or as little warping effect as you chose. For powerful perspective effects, draw a simple polygon, wide at one end and narrow at the other, and your brush will seem to fall back into the third dimension. To ensure that the final effect is polished and convincing, there are two buttons to control smoothing. I tested these controls on a couple of drastically enlarged brushes, and was amazed at the amount of detail retained and the minimum of jagged transitions. ►

Along with these two major effects-producing functions, the Controls toolbox includes buttons for setting the type of dithering used. Random dithering, the default, produces the most natural look; Pattern gives a more ordered appearance, and turning the dithering off produces a banded look. Using the Random setting adds more colors to the screen by mixing two colors to simulate a third. According to NewTek, Digi-Paint 3 uses 30 bits per pixel accuracy (over 1 billion colors) to calculate dither patterns.

The Controls box also has a Tile function that works with TxMap mode to produce a repetitive pattern using the current custom brush. The number of tiles can be set from one to nine both vertically and horizontally.

In the Mode

The Modes menu, a significant source of the program's vast power and flexibility, has been cleaned up and steamlined since Digi-Paint's first incarnation. Gone are some of the obscure entries like ADD and SUBTRACT, as well as the familiar TINT, BLEND, and SHADING. They have been replaced by or revamped into the more intuitive NORMAL, RANGE, LIGHTEN, DARKEN, COLORIZE, RUBTHRU, BLUR, and TxMAP, all of which are pretty self-explanatory and perform as expected. I particularly like COLORIZE, which takes the place of ADD and TINT. Used in conjunction with the Transparency function, COLORIZE allows an unparalleled degree of control for tinting and overlaying color washes. The range of tint colors has become more natural, as well. AND, OR, and XOR are still on the Mode menu for producing a number of interesting, if sometimes unpredictable, false color effects.

All of the Modes menu functions are capable of interacting with the full array of options in the different toolboxes. In fact, most everything in this program interacts with everything else for seemingly endless combinations (and combinations of combinations).

Full Swing

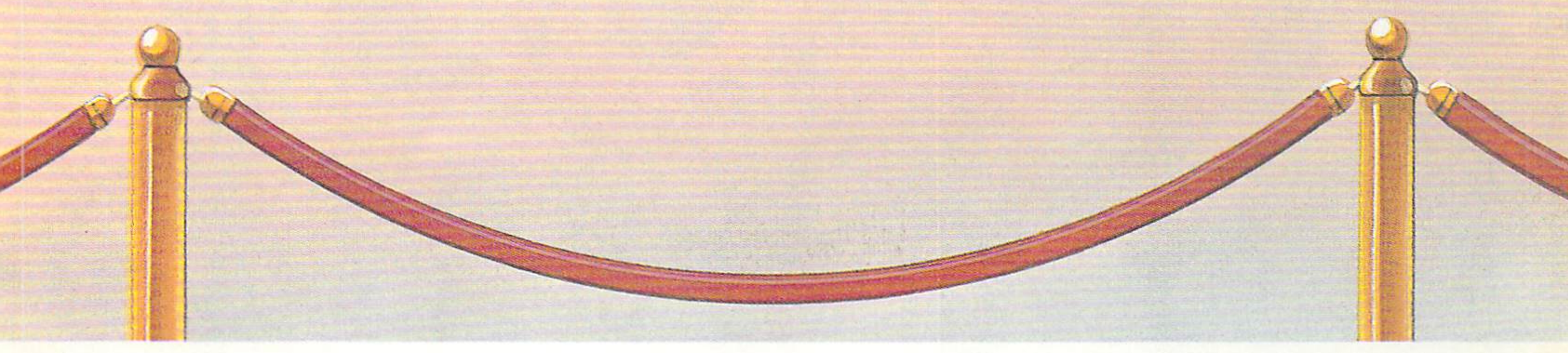
I spent many, many hours testing all the options listed in the manual as well as many that are undocumented. Never did I find the program wanting. I designed a few exacting projects to put the program through its paces, and for the most part, the results surpassed my expectations. Digi-Paint 3 is very fast, and very easy to learn and understand. The manual is a great help, but the tools and controls are so well thought out and intuitive that after a while, I hardly needed it. The sheer number of settings available is a potential source of confusion; a few times I came up with surprising effects when I had forgotton to turn off an option or two. That is, until I discovered that pressing the Tab key restores Digi-Paint 3's default settings. This clearing mechanism is a valuable inclusion, because it is easy to get tangled up in a creative frenzy. There is no default palette setting, however, which would be equally helpful, and a flood-fill tool is conspicuously absent.

The one thing I look for in any paint program is down-to-earth practicality. I want something that lets me realize the ideas and images that bubble up in my head, and develop without having to refer to the manual continually, and without having to use lots of complicated procedures. Digi-Paint 3 is that kind of ►

A Masterpiece.








Don't limit your potential! Experience **excellence!**, a word processor designed for your Amiga, with 250 available fonts, a Spell-As-You-Type 90,000+ word Dictionary, Grammatical/Style Checker, Thesaurus, Index and Table of Contents generator, Headers, Footers and Footnotes! Sail through PostScript output, True WYSIWYG, automatic Hyphenation, Math, beautiful resizable Color Graphics, flexible Mail Merge, Columns and an easy-to-use Macro-Language making complete actions a breeze! The fastest word processor for your Amiga is the only one you'll ever need! Truly a "Masterpiece" of excellence!

Committed to excellence since 1978

MSS
Micro-Systems Software

12798 Forest Hill Boulevard, Suite 202
West Palm Beach, Florida 33414
407-790-0770 Fax 407-790-1341

See your local dealer for an excellence! brochure.

Dealers and Distributors Call 1-800-327-8724

We use KAO Disks!

Amiga is a registered trademark of Commodore Business Machines • PostScript is a registered trademark of Adobe Systems, Inc. • excellence! is a registered trademark of Micro-Systems Software, Inc.

Circle 95 on Reader Service card.

program. While I cannot see using all its features for every job I tackle, I do see a practical application for almost about every tool offered. Just the sort of quality I look for in a trusted friend.

Digi-Paint 3
NewTek
115 W. Crane St.
Topeka, KS 66603
913/354-1146
800/843-8934
$99.95
No special requirements.

Music-X

It's all here, at last.

By Steve Quinzi

AFTER A PAINFULLY long period of pre-release advertisement, Music-X has finally hit the stands. If you've been paying attention, you might already know that Music-X has two main applications. It is an open-ended MIDI sequencer with features like synchronization to SMPTE and MIDI Time Code, graphic and text editing of MIDI events, and IFF sample support. Also, it is a self-configuring patch librarian that can store sounds from MIDI synthesizers.

The package comes with three disks: the program disk, one with utilities, and another filled with examples. Music-X is not copy protected, and although it requires just 512K to run, one megabyte or more is strongly recommended. If you intend to use Music-X with MIDI devices, then you will also need a MIDI interface and some kind of controller keyboard and sound source.

Paging Dr. Music

Music-X is divided into eight "pages," or screens. The first of these, the Sequencer page, appears on boot up. At the top left of this screen is the Transport window, which contains Play, Record, Pause, Fast Forward, and Rewind buttons to emulate the functions of a tape recorder. It also has auto-locate buttons that cue instantly to the beginning, end, or to any one of four predetermined points of a sequence.

Below the Transport window is the Clock window with its two displays: a musical counter, which expresses elapsed time in terms of measures, beats, and clock pulses (192 per quarter note), and a real-time counter, which reads out hours, minutes, seconds, and frames. Below this, the Tempo Display window indicates the current tempo and the number of MIDI events that have been recorded. Just to the right is the Time Signature window, which shows you the current meter.

At the bottom of the screen is the Sequence List, a database display that accommodates up to 250 entries. For each sequence listed, there are nine fields of data: a reference number, the amount of RAM it requires, its length in measures, the MIDI channels used, CST (an indication of special Music-X events within the sequence), a Time field that shows whether the sequence was recorded in relative (measures, beats, and clocks) or absolute time (hours, minutes, seconds, and frames), the sequence name, its out-

Continued on p. 100

Got The Picture...Get The Works!

PLATINUM EDITION™

Picture this: all the productivity applications you need in one easy to use "Starter Kit". Give your Amiga power times five. Give it **The Works! Platinum Edition.**

✓WORD PROCESSOR • The Works! Platinum Edition word processor is powerpacked with features that help the serious writer excel, in an easy-to-use environment that makes beginners instantly productive. The 104,000+ word dictionary with Scientific and Technical supplements keeps your spelling picture-perfect. The 470,000+ word thesaurus with definitions keeps your word-images precise. Mail Merge eliminates repetitive typing. All this, the ability to print IFF graphics, and more! It may be all the word processor you'll ever need.

✓SPREADSHEET • The Works! Platinum Edition spreadsheet is lightning fast — in fact, the fastest Amiga spreadsheet. And it supports the 68881 co-processor for even more blinding speed. The more than 40 built-in functions do sophisticated calculations. Picture your numbers in any of eight graph types and displayed in eight vibrant colors. Its complete Macro language automates complex operations.

✓TELECOMMUNICATIONS • The Works! Platinum Edition is a sophisticated telecommunications program. It is a special part of the outstanding whole. Its multiple terminal emulations and *ten* transfer protocols are the hallmark of flexibility. The script language offers unattended operation and the user defined MacroKeys reduce complex commands to a single keystroke. Ask about Sadie.

✓DATABASE • The Works! Platinum Edition is a flat file manager with power. The extensive mathematical functions make reports much more than a simple list of data.

✓SIDEWAYS • The fifth power module in The Works! Platinum Edition, stands your printouts on end. Print ASCII text files and IFF Graphics rotated 90-degrees.

The Works! Platinum Edition is true *integration* from the Micro-Systems Software Development Team; pioneers in Amiga productivity products. Experience full Clipboard compatibility, a common interface, and one user friendly manual. You owe yourself the Platinum experience! Check out **The Works! Platinum Edition** at a dealer near you.

Committed to excellence since 1978



12798 Forest Hill Blvd., Suite 202
West Palm Beach, Florida 33414
407-790-0770 Fax 407-790-1341

Dealers and Distributors Call 1-800-327-8724

See your local dealer for a demonstration.

We use KAO Disks.

LOOK,

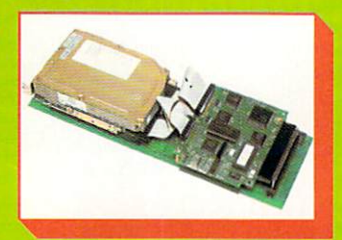
your AMIGA would choose IMTRONICS, simply the best ...

HARD DRIVE 4000



- ○ 32 MB Hard Drive for A 500;
- ○ On board up to 4 MB Fast RAM;
- ○ The most compact memory / HD system on the market;
- ○ 1 MB of memory only 198,– US$
- ○ Only 849,– US$ (32MB/0KB)

HARD CARD 2000



- ○ 32 MB Hard card for A 2000;
- ○ Autoboot with KS 1.3 from FFS;
- ○ Comes ready to use;
- ○ Step by step user manual;
- ○ Only 649,– US$

HARD DRIVE 500



- ○ 32 MB FFS autoboot HD for A 500
- ○ Non DMA design, no trouble!
- ○ Expansion Bus passed trough;
- ○ Amiga shaped case;
- ○ 420 KB/350 KB r/w (devspeed)
- ○ Only 698,– US$

PRO RAM 1.8



- ○ Memory Expansion for A500;
- ○ User upgradable up to 1.8 MB;
- ○ Fully A50I compatible;
- ○ Includes battery backed clock;
- ○ External on/off switch;
- ○ Starts as low as 149,– US$ (0KB)

IMTRONICS INC.

12301 South West 132 Court
Miami, Florida 33186

Phone: (305) 255 9302, 255 6903
Fax: (305) 255 6903

Circle 149 on Reader Service card.


JUST
5¢

Top of the Midway

The carnival's in town,

and we'll show you which games

to spend your allowance on.

EAT YOUR FILL of cotton candy, fried dough, and candied apples, then follow along on a tour of the Amiga Midway's 20 best games. You'll sample shooting galleries, houses of horror, tests of strength, space-age rides, mazes within labyrinths, even an intellectual challenge or two. As the barkers say, "You don't play, you can't win. Get a prize every time!" Unlike the old duck shoot, ring toss, darts, knock-over-the-milk-bottles, and dime-pitch games, which rewarded you with stuffed animals in day-glow colors, Amiga games offer you extra lives, magic powers, and control of the universe.

Our *AmigaWorld* Players won (and lost) plenty during their many testing sessions. Control of the galaxy changed hands more times than the manager's office of the Yankees, and enough aliens to populate an entire solar system were destroyed, all in the name of research. Testers rated each for quality of presentation (Does the game have good graphics and sound?), durability (Does it hold its appeal for a long time?), and, most importantly, entertainment value (Is the game fun?). Only games released since last year's top 40 ranking (held in July of '88 and appearing on p. 29 in the November '88 issue) were eligible. Along with the overall rankings, we picked a winner in each class (see the sidebar "Before You Play" for an explanation of the categories) and the "Best of Show" game of the year.

While we guide you through only the top 20 games, the Amiga midway offers many more attractions. For a complete map, check out our buyer's guide to games and manufacturers (p. 39).►

By Linda Barrett and the *AmigaWorld* Players: Bill Catchings, B.G. Hunter, Sheldon Leemon, Dave McClellan, Peter Olafson, Patrick Quaid, Mark Van Name, Lou Wallace, and Dodson Yaple.



ILLUSTRATED BY BARRETT ROOT

20 Where in the World Is Carmen Sandiego?

Graphics Adventure
Broderbund Software
$44.95

Log onto the Acme Detective Agency's Crime Computer to find out which of the world's priceless treasures Carmen's band of theives have made off with most recently. Beginning at the scene of the crime—one of 30 cities around the globe—you gather clues from the locals. Unraveling the clues with the aid of The World Almanac (supplied with the program) leads you on an educational chase. Arrest the thug within the alloted time, and you win a promotion (there are five detective levels) plus a tougher assignment. Stunning graphics depicting famous landmarks greet you as you land in each city.



19 Carrier Command

Action/Strategy
Medalist International
$44.95

Prepare for war. In Carrier Command's 3-D world, you command an aircraft carrier, its four fighter planes (Mantas), and its four amphibious drones (Walruses) in an attempt to wrest control of an archipelago's 60 islands from an even faster computer-controlled carrier with tendencies just as aggressive. You'll need to establish a resource island on which to construct mines and oil rigs, a factory island to transform the raw materials into weapons and fuel, stockpile islands to store the products, and, of course, a ring of defense islands to protect the more vulnerable ones. When you run out of neutral and friendly islands to colonize, launch a few Walruses and Mantas to attack a hostile island.

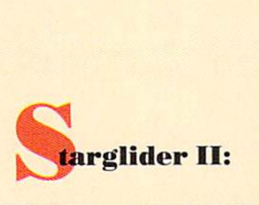
"You can ambush the enemy carrier if you wait just out of range of an island you think the computer will attack. Launch your fully-armed Mantas when you receive word the island is under attack and head for the carrier at full speed. With luck and good timing, you will catch the carrier without its own Mantas nearby. Act fast though—it moves as fast as the planes do." —Peter Olafson



18 Menace

Arcade
Psygnosis
$29.95

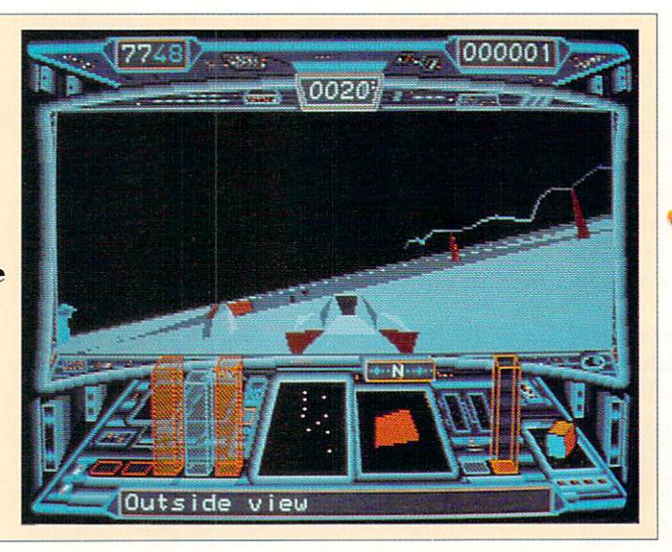
With over 60 varieties of attackers, six levels of play, and two degrees of difficulty, Menace makes you appreciate a rapid-fire joystick. If you destroy an entire wave of nasties, a bonus cube appears. You can take it for its point value, or transform it into an icon by shooting it. Grab the icon and you gain a temporary advantage (lasers, cannons, more speed, a force field, or repaired sheilds). You'll need the extra help when you go up against the guardian at the end of each horizontally-scrolling level. The 64-color graphics combined with digital speech, sound effects, and background music set the scene.



Starglider II:

Be a space-age

fly-boy.





17 Falcon

Best Flight Simulator
Spectrum Holobyte
$49.95

Without joining the military, Falcon is about as close as you'll get to the cockpit of an F-16 Fighting Falcon jet fighter. The game's graphics are excellent and the physics behind the flying is realistic. Be prepared for some heavy manual reading, however, before you take off on air-to-air and air-to-ground missions. Falcon is very detailed. The game eases you into international warfare by giving you a choice of five ranks from First Lieutenant (no crashes or enemy fire) to Colonel (you're in the Air Force now) and 12 missions. Choose your weapons, then take to the air for the program's forte—dogfights. You can even fly against another player via modem on a one-meg system.



16 Starglider II

Action/Strategy
Medalist International
$44.95

A cross between a flight simulator and an arcade-style shootout, Starglider II never lets up. Through space dogfights and careful scavenging you must accumulate enough skill and equipment to rout the dreaded Egrons from the Solice System. You can destroy your foes with gas plasma lasers, projected time-warp cuboids, fire-and-flee missiles, bouncing bombs, and a neutron bomb. Need a short cut? Just slip through the tunnel networks. While you're there, stop in at a service depot; the technicians can be a big help. The surprisingly effective plot, 3-D graphics, fast screen-refresh rate, and great sound effects will keep you riveted to the screen.

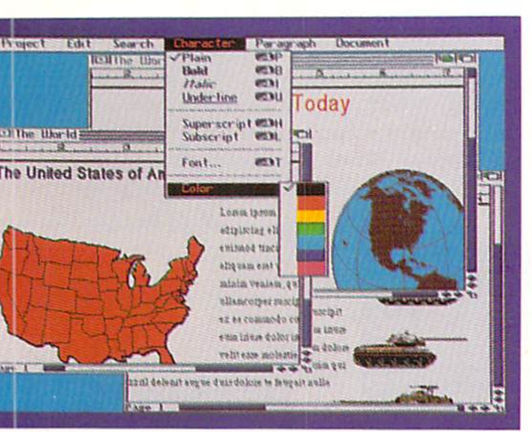
15 Zak McKracken and The Alien Mindbenders

Graphic Adventure
Lucasfilm
$44.95

Poor Zak the tabloid reporter, he has to cover a two-headed squirrel instead of a ►

ProWrite 2.5, The Best Amiga Word Processor. Guaranteed.

Feature	ProWrite	excellence	Pen Pal	Kind Words	Scribble
True Multiple Fonts	✓	✓	✓		
Color Pictures	✓	✓	✓	✓	
Wrap Text Around Pictures	✓		✓		
WYSIWYG Display	✓	✓	sometimes	✓	
Spelling Checker	✓	✓	✓	✓	✓
Mail Merge	✓	✓	✓	✓	✓
Typing Speed	fast	slow	medium	slow	medium
Spell Check as You Type	✓	✓			
Simultaneous Text and Graphics Printing	✓		✓		
Automatically Adjust to Printer's Capabilities	✓				
PostScript Support	optional	✓			
Paragraph Sorting	✓				
User Definable Defaults	✓				
Can Multi-Task with 1 Meg of Memory	✓			✓	✓
Suggested Retail Price	124.95	299.95	149.95	99.95	149.95
Guaranteed Bug Free*	✓				



ProWrite is the most reliable full-featured Amiga word processor—and it's the only one that's guaranteed. Look at the chart again. It highlights just a few of the features you get with ProWrite 2.5.

Unlike other word processors, ProWrite *can* use multiple fonts, *can* place graphics next to multiple lines of text, *can* keep up with your typing, *can* check spelling as you type, *can* multi-task with just one meg of memory, and *does* have that solid Amiga feel. And we support our product better than anyone.

See how easy and powerful Amiga word processing can be. Trade in your current word processor and for only $75 we'll send you ProWrite 2.5. Don't miss this exciting opportunity.

*Call or write to us for details on ProWrite's bug free guarantee.



First In Personal Productivity And Creativity.

206 Wild Basin Road, Suite 109 / Austin, Texas 78746
(512) 328-6650 / FAX (512) 328-1925

❑ **Yes, send me ProWrite 2.5 at a $50 savings!**

Here's my word processor program disk and a check or money order for $75 (Texas residents please add $5.81 sales tax).

NAME ______________________

ADDRESS ______________________

CITY, STATE, ZIP ______________________

Offer valid in U.S.A. and Canada only.

real story. When the alien mindbenders infiltrate the ranks of the telephone company and start infecting the population with stupidity, however, Zak gets his chance. You control Zak and three women on their around-the-world (and Mars) quest to stop the aliens. Difficult-but-solvable puzzles and an understated sense of humor run through the game's huge and interactive world. Unlike Zak, you don't need to type anything. To control the game, click the action icons and the objects you wish to act on.
"Liberal use of the What Is command upon entering a new scene will get you a long way. If you're getting no place, well, there's no place like home." —Peter Olafson



Blood Money

Arcade
Psygnosis
$49.95

Simultaneous two-player action, four almost-endless levels, and great graphics make this space shoot-'em-up a standout. Check your ethics at the door, though. In Bloody Money, you can turn around, shoot the aliens in the back, and collect money for making a kill. You can buy more powerful weapons from the equipment shops or save your booty and buy a new ship or rocket pack when you complete the level.

13 Battle Chess

Strategy
Interplay (distributed by Mediagenic)
$49.95

While still a game for intellectuals, chess goes into the trenches with Battle Chess, in which 3-D animated pieces duke it out for control of contested squares. Each piece moves and fights with a distinctive flair. Queens saunter and throw lightning bolts, knights march and clash with swords. For more traditional players the game offers a 2-D mode, an opening library with 30,000 moves, an option to retrack moves, and playing hints. You can play the computer or a friend on any of ten levels, and even over a modem.
"Try starting off with P-K4. After that, read a chess book."—Dodson Yaple



Rocket Ranger

Action/Strategy
Cinemaware
$49.95

As a rocket-powered, leather-clad hero, you fly around the world fighting relentless hordes of Nazis and gathering rocket parts. The Nazis are mining lunarium (which fuels their spaceships and bombs, plus your rocketpack) from the moon; you must steal enough rocket parts to build a spaceship that you can fly to the moon for the Big Showdown. Besides cunning, your only assests are your rocketpack, radium pistol, wrist monitor, and secret decoder wheel. While the quest for rocket parts requires strategic planning, the game is peppered with arcade sequences to keep your joystick jumping.
"When you go up against planes, try to guess where they will end up. Lay down fire along that line and get out of the way before the planes even fire. Try to get one or two each pass." —Patrick Quaid
"Use your agents to search for rocket parts and Nazi bases for a turn or two, then set them to organizing resistance. The South American base eventually becomes too tough to handle, but you'll always be able to load up on lunarium at the base in Africa."
—Dodson Yaple



Reach for the Stars

Strategy
Strategic Studies Group (distributed by Electronic Arts)
$39.95

Explore, conquer, colonize, build. Explore, conquer, colonize, build, and soon the galaxy will be yours in Reach for the Stars. Complicating matters are three computer- or human-controlled opponents and various catastrophies (novas, natural disasters, viruses, and solar debris). Not only must you plan your exploration and attack strategies, you must manage the resource points your planets produce; should you spend them on building ships and defenses now or on increasing navigational and industrial technology to build more powerful, further-ranging ships later?
"Don't try to be strong everywhere. Keep small forces around, plus a couple large counter-strike groups. Be offensive, and try to get your opponents on their heels."
—Patrick Quaid



Tetris

Arcade
Spectrum Holobyte
$34.95

Want to stretch a five-minute break to last an entire evening? Play Tetris. As various configurations of blocks fall from the top of a pit, you must rotate and position them to interlock with a growing stack below. When you complete a solid row, it collapses on itself to give you ►



Battle Chess: Don't just take a piece—destroy it.

Three good reasons why you need WordPerfect.®

1. Full Features.

Our long list of features is the industry standard and makes light work of some heavy word processing chores. Chores like footnoting, endnoting, indexing, outlining, and generating tables of contents.

Work moves along quickly while you create custom macros, merge files, and handle blocks of text.

Accurate editing is a snap with the famous WordPerfect Speller and Thesaurus.

And with WordPerfect Columns, Indents, and Fonts, page formatting is clean and simple.

Plus, WordPerfect takes full advantage of the unique Amiga environment, allowing up to 32 open windows, with pull-down menus, mouse command capabilities, and multitasking.

2. Print Quality.

WordPerfect has designed over 250 printer drivers for all the popular (and some not so popular) printers. That means no more settling for generic substitute drivers.

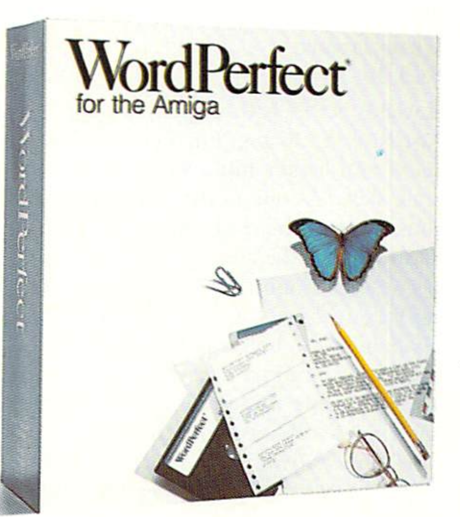
Now your documents can look as good on paper as they do in your imagination.

3. Customer Support.

Perhaps our reputation for quality software is surpassed only by our reputation for expert, friendly, toll-free support. In fact, we have over 400 WordPerfect employees answering the phones, helping our users get the most out of their WordPerfect software.

Your good writing needs a good word processor. And for features, print quality, and support, there is none better than WordPerfect.

So whether you're writing your novel, a proposal to the board, or a letter to mom, good reason says you need WordPerfect for the Amiga.



WordPerfect
CORPORATION
1555 N. Technology Way · Orem UT 84057
Telephone (801) 225-5000 Telex 820618 FAX (801) 222-4477

Before You Play

The type of game that leaves one player grinning with glee may leave another foaming in frustration. To make it easier for you to find the games you like and avoid those you know you'll never win (Ever see *anyone* land a dime completely in one of those little red circles?), we've classified the games in the *AmigaWorld* Midway into the following categories:

Arcade

Limber up your trigger finger. In these games you use a joystick or mouse to shoot, catch, avoid, or deflect objects. Although many arcade games require strategic planning, their emphasis is on dexterity and speed.

Action/Strategy

Trying to appeal to action lovers as well as thinkers, this category contains strategy games that have arcade or arcade-like elements. In the best examples, the arcade sequences are seamlessly integrated into the play of the game. In poorly-designed games, the arcade aspects seem tacked on as an afterthought.

Sports

These games simulate the play of a particular sport such as hockey, basketball, or golf. Although some sports games stress arcade skills while others stress strategy, they all let you act out your athletic fantasies.

Text Adventures

These games put you in imaginary worlds where you must use your wits to explore and survive. The worlds are created by descriptions supplied by the game. To specify your actions, you type commands; no pointing and clicking allowed, but practice your map drawing.

Graphics Adventures

Also called illustrated adventures, these games use pictures to supplement or replace text descriptions of an imaginary world. In some graphics adventures the images serve only as illustration, while in others they serve as the interactive interface. You point and click on action gadgets, then on the image you wish to investigate or move towards.

Flight Simulators

Zoom into the air realistically with these games. You are at a flying machine's controls as ever-refreshed 3-D graphics simulate its movement through the skies. The best flight simulators sustain the illusion of flight by updating the display screen many times per second through complex computations reflecting changes you've made in speed, altitude, and direction.

Role-Playing Adventures

Assemble a party of adventurers, outfit them with supplies bought from the local store, and send them off on a quest to (usually) wipe out some monsterously evil being. As the category name implies, the challenge is to develop characters with the necessary attributes to successfully face the final challenge.

Strategy Games

With strategy games, joystick prowess takes a back seat to cool, calculating thought. The category encompasses games of logic, as well as games based on real-life scenarios.

more stacking room and adds points to your score. When the blocks no longer have room to fall, the game ends. Play on one of ten standard levels, ten advanced (double-time) levels, or in tournament mode against five opponents.



Zork Zero

Best Graphic Adventure
Infocom
$59.95

A prequel to the Zork Trilogy, Zork Zero sends you back to (or under) the old sod in the final days of the empire. The evil wizard Megaboz destroyed the ruling Flathead family with a curse that now threatens the entire kingdom—only you can save it. While the story is in the Infocom tradition, it is supplemented by an on-screen map, on-line hints, a mouse interface, and some graphic diversions. For a break from adventuring, try your hand at playing Snarfem, the Tower of Bozbar, Peggleboz, or the legendary game of Double Fanucci.



Lords of the Rising Sun

Action/Strategy
Cinemaware
$49.95

Lavishly set in 12th-century Japan, Lords of the Rising Sun values judgement and leadership over battle and joystick skills. As one of two brothers, you must avenge the death of your father by capturing all the country's castles and becoming Shogun. The other clans are not about to let you rise to the top unchallenged, so be prepared for battles, sieges, and a ninja raid. Even if you can keep the ware under control, the arcade sequences will keep you on your toes.
"Don't bother trying to play as Yorimoto until you can deal with the uniformly fatal shirken sequence." —Dodson Yaple



Empire

Strategy
Interstel (distributed by Electronic Arts)
$49.95

Built around the premise "This planet's not big enough for both of us," Empire starts you off with possession of one city and an urge to take over the rest of the planet. Your cities will produce armies, fighter jets, submarines, aircraft carriers, and battleships that you can use to capture other cities and, eventually, continents. Of course, two rival conquerers are doing the same and are out to get your cities. Careful management of resources and positioning are the keys to success.
"Start building ships early. You're probably on an island, and you'll need ships for invasions." —Peter Olafson
"Explore fast. Build transports early. Always choose unconquered territory over enemy-held. Wait, build, then destroy." — B.G. Hunter ►

SupraDrive™

Simply The Best Amiga Hard Drive.

Before you buy a hard drive, look around. Look closely. Compare speeds, but also look at Interfaces...Software...Value. We think you'll agree that SupraDrives are Simply The Best Amiga Hard Drives. Here's why ...



SUPRADRIVE HARD CARD FOR AMIGA 2000
with revolutionary new
WORDSYNC™ INTERFACE

Each SupraDrive for the A500/A2000: Autoboots directly from FFS partition • Interface allows super smooth video, sound, etc., with no rude interruptions for hard drive access • Compatible with Bridgeboard™, RAM, digitizers, other boards • Supports MS-DOS disk partitions with Bridgeboards • Installs easily • Pre-formatted & ready to use • Includes 2 floppy disks of software & clear, thorough manual • Fine tuned assembly language driver software • Blind data transfers improve speed 3x • Knowledgeable tech support • Interfaces also available separately

SUPRADRIVE FOR AMIGA 500
with **AMIGA BUS PASS-THROUGH**
for unlimited expansion •
OPTIONAL 2MB RAM



All Supra Products Are Made in the U.S.A.

Breakthrough Speed.

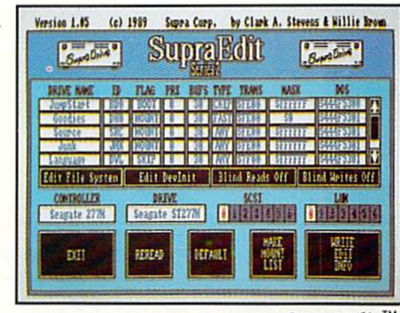
SupraDrives give you access times as low as 11 ms. and data transfer speeds of over 500K/sec. (Amiga® 2000) or 326K/sec. (Amiga 500). Features like full support of Workbench™ 1.3, the Fast File System (FFS), and multitasking make these drives *FLY*.



SupraFormat™

State-of-the-Art Interfaces.

Supra's interfaces (included with every SupraDrive) give you innovative features no one else can match. The revolutionary WordSync™ Interface transfers 16 bits at once, which gives A2000 SupraDrives DMA speed without DMA hassle. The A500 interface passes the Amiga bus signal through to your other peripherals; without Amiga bus pass-through, your system is severely limited. And all Supra interfaces feature SCSI ports for easy daisy-chaining.

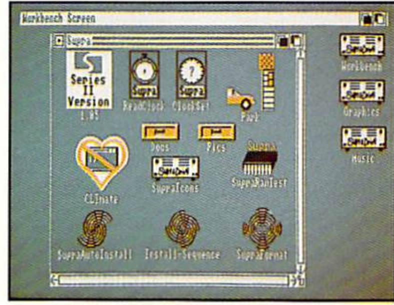


SupraEdit™

The Best Software.

After installing the drive, you'll be glad you have Supra's full array of powerful, easy-to-use software. SupraFormat makes formatting a breeze and lets you use up to 30 partitions and various file systems — FFS, MS-DOS®, Unix, Macintosh™, and more! SupraEdit lets you access low-level Amiga system information, and other included programs make using a hard disk fun and easy.





Included Software

Irresistible Value.

All this is available at a price you'll love. Look into it! Only Supra Corporation — an experienced company with a proven commitment to the Amiga and its potential — gives you such an attractive alternative: The SupraDrive. It's Simply The Best Amiga Hard Drive.

Ask your dealer for details, or call:



1133 Commercial Way Albany, OR 97321 503-967-9075
ORDERS: 1-800-727-8772 Circle 208 on Reader Service card.

SupraDrive, WordSync, SupraFormat, and SupraEdit are trademarks of Supra Corp. Amiga is a registered trademark and Workbench is a trademark of Commodore-Amiga, Inc. MS-DOS is a registered trademark of Microsoft Corp. Macintosh is a trademark of Apple Computer



TV Sports: Football

Sports
Cinemaware
$49.95

Play football against a friend or the computer, and lead your team through one game or an entire season. Choose your plays from a separate screen, then control your player with the joystick. In season mode, the program sets up a schedule and plays pairings where both teams are computer-controlled. It even keeps track of statistics and standings as the season progresses. With detailed graphics, bone-crunching sound effects, arcade action, strategy, and cheerleaders, TV Sports: Football offers something for all types of football fans.

"If you can't pass well, try running a wishbone. Actually this works a lot better if you are playing teammates, because the computer does not expect the laterals." —Patrick Quaid

"Pick a few good plays and stick with them. When running out the clock, pick the formation but not the play and wait for the clock to run down to about three seconds, then pick and play." —B.G. Hunter



Sim City

Best Strategy
Maxis Software (distributed by Broderbund)
$44.95

Want to move, but can't afford the new house? With Sim City you can build a new city right in your own house. A city simulator based upon an American Urban Architecture model, the game lets you plan, develop, and manage a city's growth, taxes, budget, transportation, power sources, and more. Sadistic players can even inflict disasters (floods, fires, tornadoes, earthquakes, and monsters) on their cities. Before you take any action, you can poll the residents on how you're handling things or study the maps and graphs for more information. If you don't want to build your own, you can save the eight provided cities from their eight accompanying disasters within the allotted deadlines.

"As always, embezzlement is an undocumented option. Hold down the shift key and type FUND. You'll be $10,000 richer, and no one's the wiser, eh?" —Peter Olafson

"When commerce demands an airport, put one in, but hook it up—it only causes plane crashes." —Sheldon Leemon



Sword of Sodan

Best Arcade
Discovery Software
$49.95

Large, gorgeous graphics make this vertically scrolling medieval slice-and-dice fest a stand out. As the hero or heroine, you must fight your way to and through the Castle Craggamoore and defeat Zoras the Necromancer to avenge his murder of your father. You are armed with only your sword, but will find other helpful items and magic spells along the way. Of course, you'll also find plenty of traps and Zoras' hench-creatures blocking your path. With a hot joystick and a judicious use of magic, you might make it through unharmed.

"Don't be scared off by the giant. He's big, but he's slow." —Peter Olafson



Wayne Gretzky Hockey

Best Sports
Bethesda Softworks
$49.95

Wayne Gretzky Hockey simulates the good, bad, and ugly of hockey—fast action, teamwork, excitement, fights, fouls, and even bad calls. You can control a player for on-ice participation, stay behind the bench to coach, or coach and play. You view the horizontally scrolling rink from above and control your player with the mouse or joystick. Whether you play the computer or a friend, you can handicap each other to play at high school, college, junior or professonal levels. As coach, you not only call the plays, but also make player substitutions. Each team member is rated from zero to nine for 11 characteristics. Make sure you have the best (and freshest) line on the ice for the situation.

"Chances are the moron who went offsides was you. The officials will make bum calls, so don't cut it too close." —Patrick Quaid



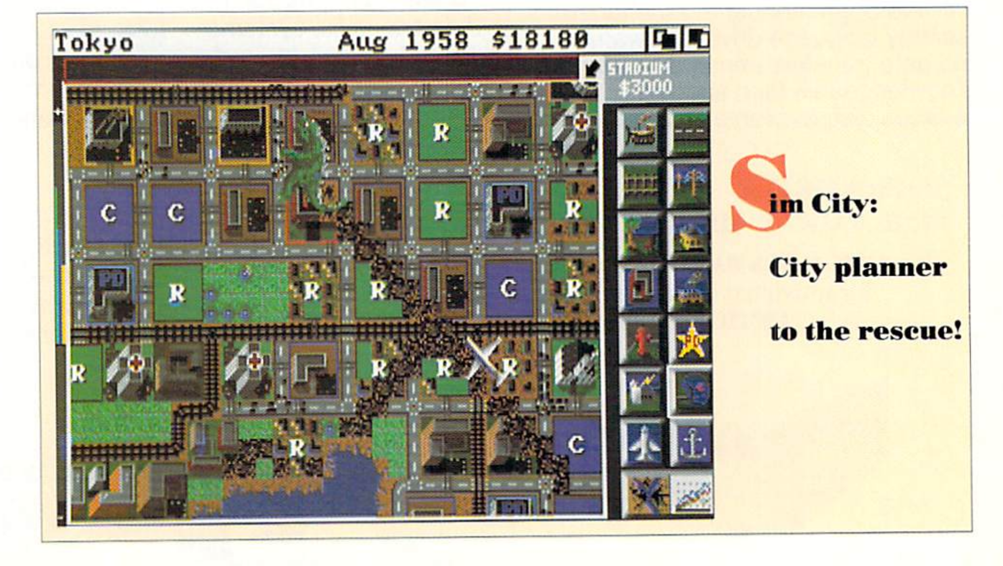
Populous

Best Action/Strategy
Electronic Arts
$49.95

You play a god (evil or benevolent), aiding the expansionist policies of your own people and visiting earthquakes, floods, volcanoes, swamps, and more on the Other People, who are watched over by the computer or another omnipotent human. Essentially an icon-driven arcade chess game with real people, Populous offers 500 worlds to conquer, or use the world maker to design your own.

"A good basic strategy is to create as much flat land (hence ripe for settling) as possible. Focus first on expanding settlements." —Peter Olafson

"Never cause a flood when your own people occupy the low lands!" —Sheldon Leemon ►



Sim City: City planner to the rescue!

THE BEST FOR YOUR AMIGA® 2000

SupraDrive™ with WordSync™



- Easy-to-Install, Autobooting Hard Card with WordSync™ Interface
- WordSync Interface Kit also available separately
- Interface transfers 16 bits at once, giving DMA Speed Without DMA Problems
- Eliminates the sound, video, and serial I/O interruptions found with DMA iinterfaces
- 1-slot design & SCSI-out port
- Easy On/Off Autoboot Jumper
- Compatible with Amiga Bridgeboard, RAM, digitizers, and other boards
- Includes SupraBoot & SupraTools — two full disks of utility software
- Up to 30 Partitions
- All available file systems supported: FFS, MS-DOS, Unix, Macintosh, etc.
- Access to low-level parameters without maintaining MountList
- Excellent Technical Support
- Made in the U.S.A.

30MB	(40 ms. RLL)	**$649**
45MB	(28 ms. RLL)	**$749**
80MB	(11 ms. RLL)	**$1299**

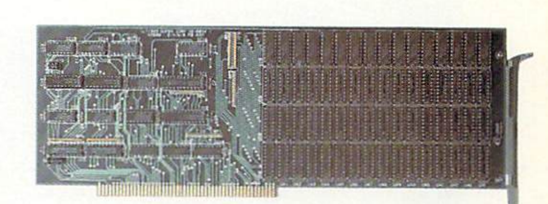
WordSync Interface Kit $199.95

SupraModem™ 2400zi

- Half card modem fits in any Amiga bus slot
- Up to 5 modems per computer
- Works with all popular Amiga telecommunications software
- 100% compatible with the industry-standard "**AT**" command set
- Asynchronous 2400/1200/300 baud operation
- Compatible with Bell 103/212A and CCITT V.21/V.22/V.22bis
- Autoanswer/Autodial (tone or pulse)
- Adjustable-volume speaker
- Nonvolatile memory stores custom modem configuration and one telephone number
- Includes free subscriptions to popular on-line services
- Made in the U.S.A.

2400zi	**$179.95**

SupraRam™ 2000



- 2, 4, 6, & 8MB configurations available
- Installs easily into any Amiga internal expansion slot
- Easy to expand from your initial configuration — Start with 2MB & add RAM at your convenience
- 6MB configuration allows for maximum benefit with the Amiga Bridgeboard
- Lets you run larger and more sophisticated programs
- Allows creation of large and extremely fast RAM disks
- Test mode & test software make troubleshooting easy
- Made in the U.S.A.

8MB RAM Board	
with **2MB** Installed	**$499**
with **4MB** Installed	**$845**
with **6MB** Installed	**$1145**
with **8MB** Installed	**$1395**

AVAILABLE AT YOUR LOCAL DEALER, OR CALL:



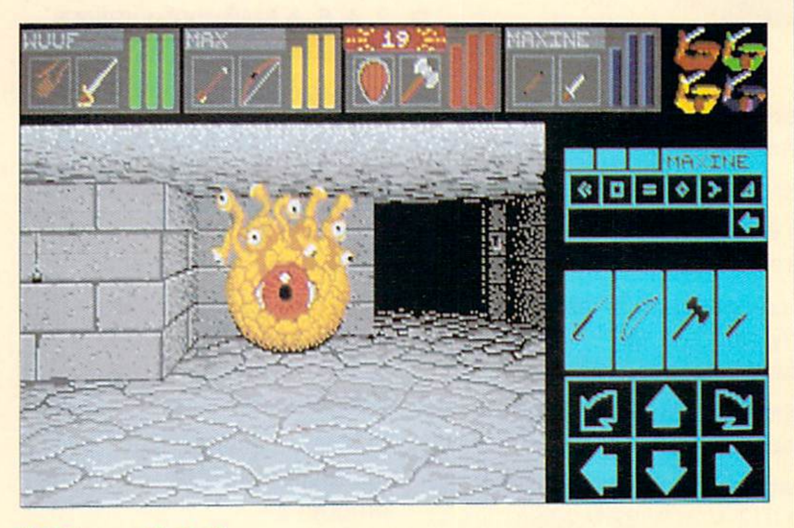
Supra Corporation
1133 Commercial Way Albany, OR 97321
Voice: 503-967-9075 Fax: 503-926-9370

ORDERS: 1-800-727-8772

Circle 88 on Reader Service card.



Explore carefully, or this could be you.



Will you fight?



Find the speedboots and you can flee faster.



Dungeon Master

Best Game
Best Role-Playing Adventure
Software Heaven
$39.95

The paramount dungeon adventure, Dungeon Master leaves all others of its ilk lurking in the shadows. You select four heroes, each with unique characteristics, and set out to recover the Fire Staff, stolen by Lord Chaos and hidden in his dungeon. As you descend through the 14 levels of serious hell, puzzles and foes get progressively tougher. Luckily, you can hear the sounds of approaching monsters. Don't get so busy fighting that you and your band forget to eat, drink, and rest. The game is played in real time (with the mouse), and you'll need your health and stamina. Keep your eyes open too for weapons, armor, and scrolls of magic spells strewn around the corridors. The complex puzzles combined with a simple interface make Dungeon Master accessible to beginning adventurers and intriguing to even the most jaded.

"The early nasties can be taken on head to head. The trees are even edible. Bash it out then, but don't be afraid of retreating from some of the ones that follow. Lure them from corridors into wider spaces where you can practice the 'Dungeonmaster Two-Step:' Float like a butterfly and sting like a purple worm." —Peter Olafson

"Here's a handy way to inflict damage when you're weaponless: Lure monsters into a gate or doorway, then click to close the door on them."

—Peter Olafson

"You can only move as fast as your slowest member. Keep your two front scouts suited in the best armor and your supplies evenly distributed."

—Lou Wallace

"Look at what's on the walls, including dungeon fixtures you see constantly. Items are hidden everywhere."

—Linda Barrett ■



THE DESTRUCTION OF THE BARRAX EMPIRE!

Whirling Barrax ships dart out from the dark spiral caves and attack from the right. You bank hard left, launching "smart" bombs. Look out! One of those darn "chameleons" is dead ahead — they're tough to spot and even tougher to stop! Avenge the Barrax Empire's deadly attack on earth in **BATTLE SQUADRON**. You'll be fighting on their turf, but you carry the most devastating arsenal in the universe. And if you're the best combat pilot, you just might succeed!

- Spectacular digitized sound — hear every explosion and collision.
- Single or two-player action with vertical and horizontal scrolling.
- More than 30 continuous minutes of sparkling background graphics.
- The toughest arcade challenge in any galaxy!

Now Available for Amiga !
Suggested retail price: $39.95!

INNERPRISE
Software, Inc.

128 Cockeysville Rd • Hunt Valley, MD 21030 • (301) 785-2266

Can't find Battle Squadron? Call for MC/VISA orders or send check money order (U.S. $) for $39.95 plus $2.50 shipping and handling.
Battle Squadron is a trademark of InnerPrise Software, Inc. Amiga is a trademark of Commodore-Amiga, Inc.

Circle 254 on Reader Service card.

GHOSTS OF GAMES FUTURE

Unlike the bleak vision shown to Scrooge by Marley's Ghost, the future of Amiga games is full of promise and excitement.



IF THE 1989 Computer Game Developers' Conference in San Jose was any indication, we should be seeing some dazzling new innovations in the Amiga game market for 1990 and beyond.

With over 300 game designers and developers in attendance, the Conference confirmed that the Amiga is currently the fastest growing computer for game software, and in 1990 it should pull into the No. 2 slot behind MS-DOS machines. And although many publishers may still develop their games first on MS-DOS machines, the majority will be following up with Amiga versions almost immediately—with some planning to develop specifically for the Amiga and its special capabilities.

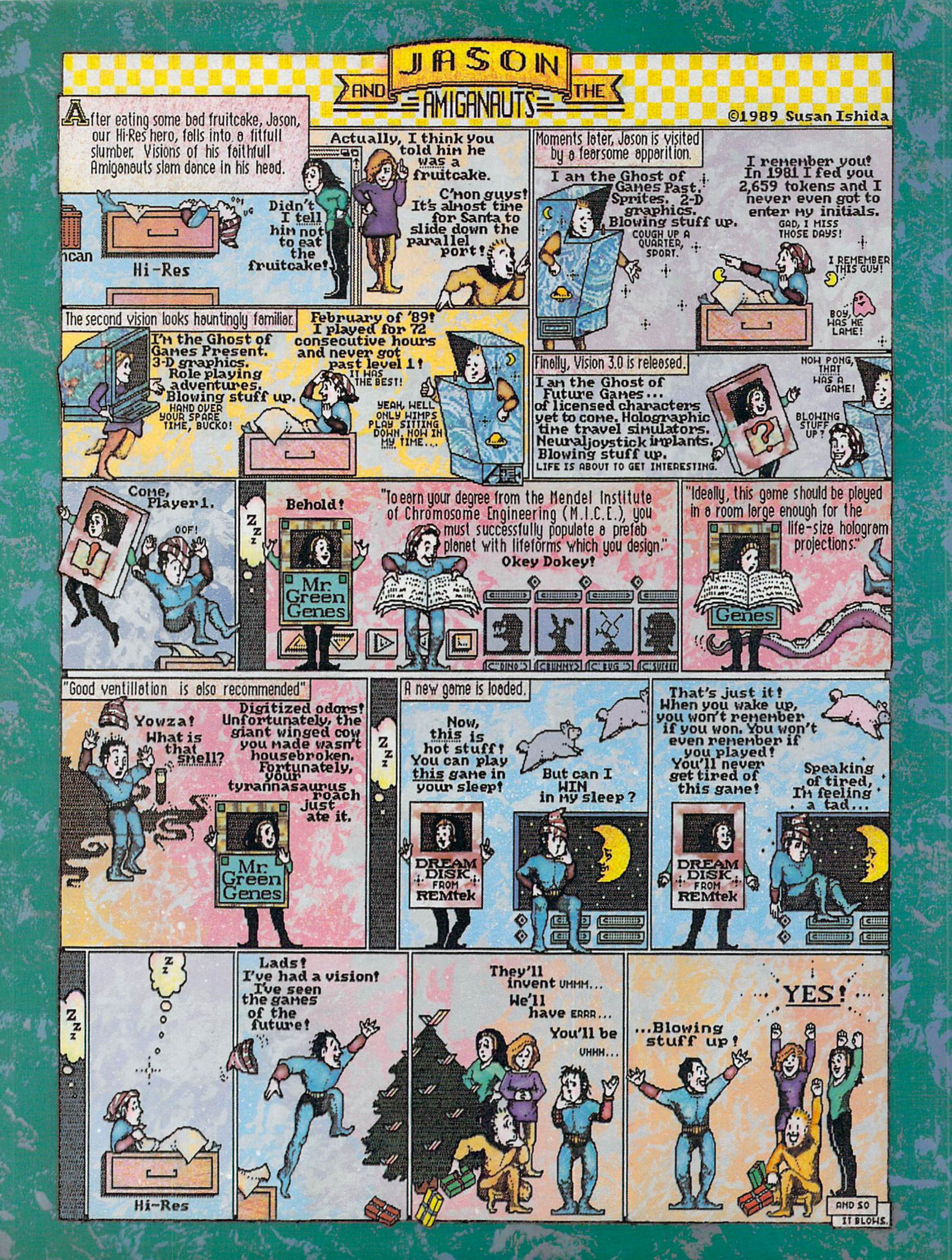
Look for some Amiga games to require even one megabyte of memory and two disk drives, although the majority of games will still keep to the 512K standard as long as the A500 retains that amount as its base memory. Some developers plan to support extended memory to help buffer the flow of graphics or sound data from disk, creating a faster-playing game. Now that 68020 boards are more common, all games will be compatible with it.

More games will take advantage of some of the Amiga's unusual capabilities, such as HAM mode, multitasking, and four-channel stereo sound. Some publishers (most likely the smaller European developers) may initially use these as gimmicks to attract attention to their products, but they will probably be more widely exploited given a little more time. The new Fat Agnus chip will make possible larger graphics and sound files, but most publishers won't take advantage of this until the majority of machines have one (perhaps in 1991). Also, as hard-disk drives become more common, more games will work from one (the way Zany Golf from Electronic Arts or BattleChess from Interplay Productions do now). On-disk copy protection is becoming less popular, as publishers increase their use of code wheels, maps, and other tools that make copying difficult and annoying.

Many developers are adding a modem option to their games for multiplayer action. Modem options are usually found on a flight simulator, but developers plan also to use them in role playing and strategy games. Information services and networks will be offering more games with greater sophistication—►

By Steve Peterson

ILLUSTRATED BY SUSAN ISHIDA



JASON AND THE AMIGANAUTS
©1989 Susan Ishida
After eating some bad fruitcake, Jason, our Hi-Res hero, falls into a fitfull slumber. Visions of his faithfull Amiganauts slam dance in his head.
Hi-Res
Didn't I tell him not to eat the fruitcake!
Actually, I think you told him he was a fruitcake.
C'mon guys! It's almost time for Santa to slide down the parallel port!
Moments later, Jason is visited by a fearsome apparition.
I am the Ghost of Games Past. Sprites. 2-D graphics. Blowing stuff up.
COUGH UP A QUARTER, SPORT.
I remember you! In 1981 I fed you 2,659 tokens and I never even got to enter my initials.
GAD, I MISS THOSE DAYS!
I REMEMBER THIS GUY!
BOY, WAS HE LAME!
The second vision looks hauntingly familiar.
I'm the Ghost of Games Present. 3-D graphics. Role playing adventures. Blowing stuff up.
HAND OVER YOUR SPARE TIME, BUCKO!
February of '89! I played for 72 consecutive hours and never got past level 1!
IT WAS THE BEST!
YEAH, WELL ONLY WIMPS PLAY SITTING DOWN. NOW IN MY TIME...
Finally, Vision 3.0 is released.
I am the Ghost of Future Games... of licensed characters yet to come. Holographic time travel simulators. Neuraljoystick implants. Blowing stuff up.
LIFE IS ABOUT TO GET INTERESTING.
NOW PONG, THAT WAS A GAME!
BLOWING STUFF UP?
Come, Player 1.
OOF!
Behold!
Mr. Green Genes
"To earn your degree from the Mendel Institute of Chromosome Engineering (M.I.C.E.), you must successfully populate a prefab planet with lifeforms which you design."
Okey Dokey!
"Ideally, this game should be played in a room large enough for the life-size hologram projections."
Genes
"Good ventillation is also recommended"
Yowza! What is that smell?
Digitized odors! Unfortunately, the giant winged cow you made wasn't housebroken. Fortunately, your tyrannasaurus roach just ate it.
Mr. Green Genes
A new game is loaded.
Now, this is hot stuff! You can play this game in your sleep!
But can I WIN in my sleep?
DREAM DISK FROM REMtek
That's just it! When you wake up, you won't remember if you won. You won't even remember if you played! You'll never get tired of this game!
Speaking of tired, I'm feeling a tad...
DREAM DISK FROM REMtek
Hi-Res
Lads! I've had a vision! I've seen the games of the future!
They'll invent UMMM... We'll have ERRR... You'll be UHHH...
...Blowing stuff up!
YES!
AND SO IT BLOWS.

Amiga-specific "front ends" with stunning graphics and sound and the ability to play the game with dozens or even hundreds of other people.

GAMES FUTURE CATCHING UP WITH AMIGA PRESENT

Much of the progress in game development will come about as software publishers begin seriously to tap the present capabilities of the Amiga. Graphics is one area developers are always striving to improve. Many current games use only 16 colors in 320 × 200 mode, as that makes it easy to move game graphics from the Amiga to the IBM or the Atari ST. But increasing competition has ruled that out for most games, and 32 colors are becoming the standard. Some games, particularly those from Psygnosis (such as Menace) are using Extra_Halfbrite mode for 64 colors, and overscan for even larger screen sizes than normal. We have seen already a HAM mode game (Pioneer Plague from Terrific Software) using all 4096 colors at once. Because many games are being ported to the Amiga from the IBM's 256-color MCGA mode, we will see more Extra_Halfbrite and HAM games in the future, as developers use the larger palettes to their fullest extents.

Animation is, of course, a key strength for the Amiga, where the blitter allows for faster animation than on any other personal computer. More publishers are trying out larger-size characters (à la Sword of Sodan from Discovery) for more realistic action. Silent Software (for upcoming games such as 20,000 Leagues Under The Sea) is using ex-Disney animators to give its animation that extra level of realism.

Sound is one of the Amiga's most powerful features, and more games are taking advantage of it. In order to keep music "portable" between different machines, many Amiga scores are being written for a synthesizer and stored as MIDI data. This data is then used to drive digitized instruments through the Amiga's stereo sound channels. Increasingly, developers are optimizing their scores for the Amiga's four-channel sound, adding stereo effects for added impact. In the future, a MIDI output option may be available on some games. (You will, of course, need MIDI equipment to use such an option.)

Sound tracks and sound effects will get better as developers become more familiar with the technology. Expect continuous music sound tracks (as in games such as Menace from Psygnosis) to be the standard in the near future. Eventually, we will hear interactive, context-sensitive music that responds to the current game situation: When your character is in trouble, the ominous piano tones will boom, and when the villain appears, the violins will shriek. (Sierra On-Line is developing in this area now.)

THE SOUL OF THE GAME

While graphics, sound and hardware considerations are important, they are only the exterior of a game. The soul of a game lies in its design and story, and more effort is being put there. MicroProse, for instance, has hired a staff of experienced game designers from board-game and role-playing-game companies specifically to design (not program) its games. Other publishers are now bringing in writers and designers to help make their games better-written, more involving, and more exciting.

Many developers are trying to go beyond the basic shoot-'em-up or dungeon crawl. Cinemaware brought a new mix of arcade action and storytelling to the Amiga with Defender of the Crown and other titles. MicroProse is trying to blur the boundaries between action, simulation, and role-playing games. Its F-19 (coming soon for the Amiga) has RPG and simulation elements in its flight simulator combat missions, while its upcoming Samurai uses RPG, action, and war-game elements.

One of the few things that future games will have in common will be simpler interfaces. More games will have rows of icons (as in Dungeon Master from Software Heaven), rather than text commands, making international versions easier. Less violent themes and more cooperation will be another future trend.

Fantasy, science fiction, action, and sports will continue to be popular subjects for games. Licensing of popular movie and book titles will become even more common. In fact, there will be more efforts at making licensed products come close to the original. With Lucasfilm's Indiana Jones and The Last Crusade, several scenes that were cut from the movie appear in the game, and both George Lucas and Steven Spielberg participated in the design process. We will also see more cross-marketing of computer games with other media—such as paper games, comic books, and novels—to create multimedia game experiences. At present, for instance, a board-game version of the Ultima series from Origin Systems is planned, while Infocom's BattleTech role-playing game is also available in paper-game and book formats, and an arcade game is currently in testing.

Beyond the next few years, future visions include CD-ROM technology, which allows 600 megabytes of data. The results on an Amiga would be stunning: How does TV-like graphics and animation with full orchestral sound tracks grab you? New ways of interacting with the computer, such as individual eye-screens, body-movement sensors, or even direct neural connection, will completely transform the game interface. The games that are being forged now in the cauldrons of software development are the tools that will build this new industry. (*Note*: For addresses and telephone numbers of game developers mentioned in this article, consult the "Manufacturers' Addresses" box at the end of the Games Buyer's Guide on p. 58.) ■

Steve Peterson founded his own role-playing-game company in 1981, has worked for a major game developer, and written a choose-your-own-adventure book. Write to him c/o AmigaWorld, *Editorial Dept., 80 Elm St., Peterborough, NH 03458.*

KEEP THE CHANGE!

1 MEGABYTE AMIGA VERSION IDENTICAL TO THE ARCADE GAME!

It looks, feels, and plays like a real Arcade game . . . *because it is!*

But you don't have to wait your turn at the Arcade to put your quarters into this new high-energy game . . . you can take it home to play on your personal computer!



WORLD Trophy SOCCER

Rick Davis's World Trophy Soccer features real-to-life animation designed and programmed by professional cinema animators! The superb multidirectional scrolling is so smooth and fast it can make you dizzy just watching it!

Play with a friend, and you'll both have a lot of fun. Play against the computer, and you're in for the wildest challenge ever!

It's literally like bringing an Arcade machine home!



IBM PC/Tandy 1000

Coin-op Arcade/Amiga

Coin-op Arcade/Amiga

IBM PC/Tandy 1000

Coin-op Arcade/Amiga

IBM PC/Tandy 1000



NOW SHIPPING FOR:		COMING SOON FOR:	
Amiga (1 meg.)	$49.99	Amiga (512K)	$39.99
IBM 5-¼"	$39.99	Atari ST	$39.99
IBM 3-½"	$39.99	Commodore 64	$29.99





Setting New Standards IN COMPUTER SOFTWARE

Distributed by

MASTERTRONIC

18001 Cowan
Irvine, CA 92714
(714) 833-8710

Circle 104 on Reader Service card.

FOUR COMPUTER HACKERS ARE ABOUT TO RAID YOUR DISK DRIVE.



No computer will go unscathed, as Ultra's version of Teenage Mutant Ninja Turtles® storms into your disk drive to duke it out with Shredder™—a maniac more menacing than an army of mind-altered Bruce Lees.

But if they're to survive, you must command the role of each turtle, rumbling through a maze of Mouser™ infested sewers, criminally polluted rivers and alleys patrolled by the fanatical Foot Clan.™

Along the way, search for bonus weapons like the Triple Shuriken. You'll have to also think fast, switching turtle identities in order to match their karate skills with those of the enemy.

So grab your joystick and nunchukus, then control every leap, chop, slice and dice, until you splatter Shredder senseless or get yourself hacked into turtle soup.

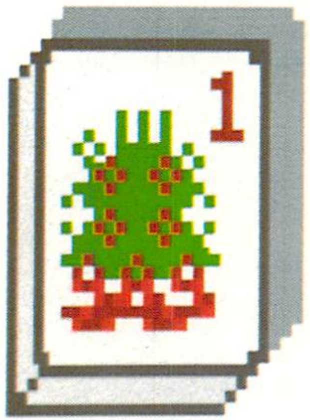
Now featuring the ULTRA® "GAME SAVE" command.



Teenage Mutant Ninja Turtles is available for IBM, Commodore and Amiga.

Circle 25 on Reader Service card.

The Great Amiga Games Buyer's Guide



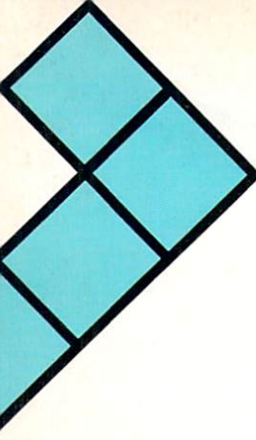
FEEL THE URGE to conquer medieval Britain? Hop a spaceship to the planet Drax? Maybe you'd prefer a Rambo-fest of destruction? Whatever your fantasy, our Games Buyer's Guide offers a way to live it out.

With the entertainment market expanding at warp speed, we decided it deserved a product listing all its own (stay tuned for our annual applications software buyer's guide next month), and deluged games manufacturers with questionnaires. The *AmigaWorld* offices were then equally flooded with responses, which we sorted and cataloged in the eight categories listed below. (For an explanation of each, see the sidebar "Before You Play" on page 28.)

To keep the listing from being a complete flight of fancy, we listed only games already on the market or with a promised release date of November 31. Such promises—as well as prices and product names—are subject to change. If a company had decided on a release date but not a price, we listed NA (Not Available) in the Price column. For descriptions of last minute pre-Christmas goodies, watch our New Products column, "What's New?."

By Jan Jackson

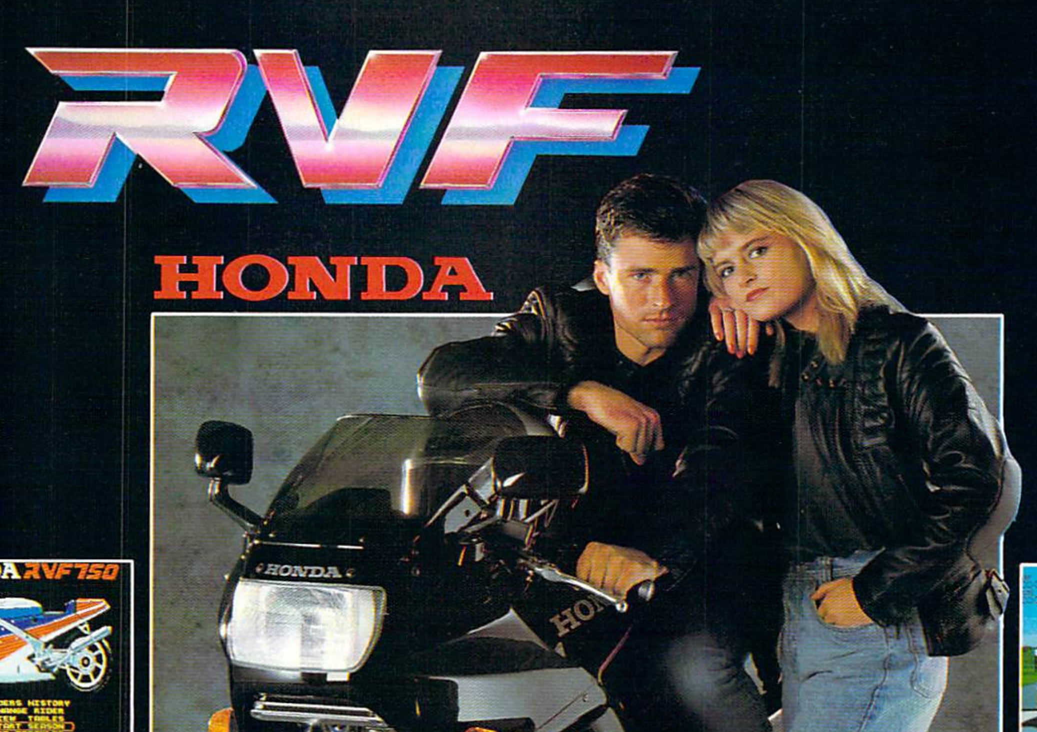


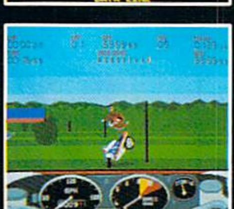


ACTION/STRATEGY

PRODUCT	COMPANY	PRICE	DESCRIPTION
4-In-One: Easy But Fun	Polyglot	$14.95	Play Slot Cars, Circuit Mania, Shuffle Puzzle.
Andromeda Mission	Demonware	$39.95	See M31 in style.
Axe of Rage	Epyx	$49.95	Avoid cave crud, lava rivers, dripping gore.
Battleship	Epyx	$29.95	Naval combat.
Beyond Dark Castle	Activision	$39.95	Bomb and jetpack thru catacombs, swamps.
Carrier Command	Medalist	$44.95	Strategy—resolve the energy crisis.
Death Sword	Epyx	$29.95	Head-to-head medieval sword battle.
Defcon 5	Cosmi	$39.95	Star battle simulation.
Defender of the Crown	Cinemaware	$49.95	Lead Saxon swordsmen against the Normans.
Destroyer	Epyx	$19.95	Command a US destoyer.
Devon Aire	Epyx	$49.95	Prowl a wealthy household for diamonds.
DinoWars	DigiTek	$39.95	Interactive game—includes encyclopedia.
Dragon Force	Interstel	$49.95	Join an elite international strike force.
Federation	Cinemaware	$39.95	Strategic space trading, combat adventure.
Fire Zone	Datasoft	$34.95	Simulates combat scenario in the 21st Century.
Galactic Conqueror	Titus	$44.95	Foil an alien take-over.
Gold Runner II	Microdeal	$39.95	Defend yourself from space pirates.
Heroes of the Lance	Strategic Sim.	$39.95	Advanced Dungeons and Dragons module.
Hits Disk Vol. I	Microdeal	$39.95	4-pack of Microdeal favorites.
Hunt for Red October	Datasoft	$49.95	Submarine simulation based on Clancy no[illegible].
Ikari Warriors	Elite	$39.95	US forces in Central America.
Impossible Mission II	Epyx	$19.95	Explore eight towers, avoid robots, mines.
Insanity Fight	Microdeal	$39.95	Space battle.
It Came from the Desert	Cinemaware	$49.95	Suppress giant, flesh-eating insects.
King of Chicago	Cinemaware	$24.95	Violence, intimidation, bribery.
Kingdoms of England	Incognito	$44.95	Strategy game with graphics.
Knights of the Cryst.	Terrific	$39.95	Five inter-dependent, HAM mode games.
Lazer Squad	MicroIllusions	$39.95	Pack of MicroIllusions' hits.
Licence to Kill	Broderbund	$34.95	As 007, bring a drug-lord to justice.
Lords of the Rising Sun	Cinemaware	$49.95	Command armies of samurai.
Major Motion	Microdeal	$39.95	Drive in jeopardy against the Lawless League.
Manhunter San Francisco	Sierra On-Line	$49.95	Adventure strategy.
Matrix Marauders	Psygnosis	$34.95	Maze action.
Mighty Nerd	ISM Inc.	$49.95	Edit powers of an odd superhero.
Mind-Roll	Epyx	$29.95	Maneuver a globe through astral planes.
Pioneer Plague	Terrific	$39.95	Stop a terra-forming robotic space ship.
Police Quest	Sierra On-Line	$49.95	Law-enforcement simulation.
Populous	Electronic Arts	$49.95	You play god—500 worlds to rule.
Project Neptune	Epyx	$39.95	Underwater in a sub or in scuba gear.
Purple Saturn Day	Epyx	$39.95	Intergalactic sports with aliens.
Quadralien	Spinnaker	$39.95	Destroy evil Quadaliens infesting Astra.
Return to Atlantis	Electronic Arts	$19.95	Aquatic adventure.
Revenge of Defender	Epyx	$34.95	Laserize otherwordly opponents.
Rocket Ranger	Cinemaware	$49.95	Battle 1940 Nazis and their machines.
Rubicon Alliance	Datasoft	$29.95	Pilot a Starfox fighter, planetary conflict.
Sinbad and the Throne	Cinemaware	$29.95	Battle dark and mysterious forces.
Skyfox	Electronic Arts	$19.95	Combat flight simulation.
Skyfox II	Electronic Arts	$19.95	Travel faster in a 3-D environment.
Snow Strike	Epyx	$39.95	Attack South American drug lords.
Space Station Oblivion	Epyx	$19.95	3-D terrain to explore by land or air.
Star Trek V	Mindscape	$54.95	Assume the role of Captain Kirk.
Starglider II	Medalist	$44.95	Interplanetary battle strategy.
Stargoose	Spinnaker	$39.95	Steal power crystals from one of eight cities.
Street Cat	US Gold	$24.95	Multi-event feline sports activities.
Sub Battle Simulator	Epyx	$19.95	Command US or German subs of WWII.













Strap on your driving gloves!

RVF Honda puts you in the seat of one of the world's most powerful two-wheeled machines for high-speed Formula One motorcycle excitement!

- Realistic bike controls and race conditions give the feel of authentic Formula One racing!
- Dazzling, detailed graphics and digitized engine sounds make the action even more intense.
- Race on famous European tracks such as Donington Park, Hockenheim, and Salzburgring!
- 22 challenging courses on three racing levels provide constant challenge for novice and experienced cyclists. Compete at club level, in national events, or on the no-holds-barred international circuit!
- Scoring accurately based on the championship points system.

Win Great Prizes with Medalist "Medal Madness" Starting September 1.

See your local retailer for details.

NEW FROM

MEDALIST INTERNATIONAL

A marketing division of MicroProse Software, Inc.
180 Lakefront Drive • Hunt Valley, MD 21030

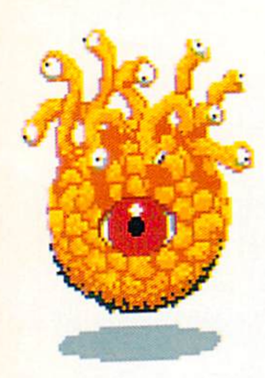
Circle 198 on Reader Service card.





Can't find these games? Call 301-771-1151 X-208 weekdays 8:30am to 5pm Eastern and order by MC/Visa/AmEx. Or mail check or money order. Send $39.95 for Amiga and Atari compatibles and/or $39.95 for IBM/Tandy compatibles. Includes shipping in US. Add $5.00 for international orders. US funds only. MD residents add 5% sales tax. Allow 1-3 weeks for US delivery.

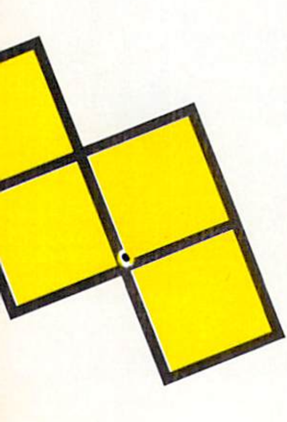




Technocop	US Gold	$49.95	Cops and robbers of tomorrow.
Telewar	Telegames	$39.95	Tank, naval, and space battles by modem.
The Colonel's Bequest	Sierra On-Line	$59.95	Solve a murder.
Titan	Titus	$66.95	Solve 80 levels of challenging puzzles.
Total Eclipse	Cinemaware	$39.95	Locate and destroy an evil shrine.
Tower Topler	US Gold	$49.95	3-D spiraling, rotating towers.
Turbo 20–20	Gainstar	$39.95	3-D road war simulation.
U.F.O.	SubLOGIC	$49.95	Spacecraft flight simulator.
Victory	Demonware	$39.95	Arcade-action, strategy.
Welltris	Spectrum Hol.	$34.95	3-D Tetris-style game.
Zero Gravity	Microdeal	$39.95	Play ball in weightlessness.

ARCADE

PRODUCT	COMPANY	PRICE	DESCRIPTION
Aaargh!	Arcadia	$39.95	Your monsters munch through 11 cities.
Action Fighter	Mindscape	$39.95	Careen in a crime-fighting motorcycle.
After Burner	Mindscape	$49.95	Pilot an F-14 Tom Cat.
Airball	Microdeal	$39.95	Play ball in a house full of sharp objects.
Ajax	Konami	$44.95	Command attack copter and jet fighter.
Alien Legion	Gainstar	$39.95	Horizontal scrolling-shoot'em up game.
Alien Syndrome	Mindscape	$39.95	Rescue crew of alien-infested space ship.
All Dogs go to Heaven	Polarware	$49.95	Three dog's antics as in the film.
Aqua Ventura	Psygnosis	$49.95	Move solid objects on scrolling screen.
AquaBlast	Elite	$34.95	Complete your mission via complex waterways.
Archipelagos	Logotron	$39.95	Quasi-tropical landscape with aliens.
Arcticfox	Electronic Arts	$19.95	Arcade tank game.
Arkanoid	Discovery	$29.95	Breakout-style arcade with 66 levels.
Artura	Arcadia	$39.95	An arcade adventure with enemies and traps.
Aunt Arctic Adventure	Mindware	$39.95	Help Charlie the Chimp and Penguin Pete.
Awesome Arcade Action	Arcadia	$49.95	Xenon, Blasta Ball, and Sidewinder.
Baal	Psygnosis	$29.95	Scrolling screen features 100 monsters.
Ballistix	Psygnosis	$34.95	Play alternates between soccer, pinball . . .
Barbarian	Psygnosis	$39.95	You are Hegor the dragon-slayer.
Battle Squadron	Innerprise	$49.95	Battle chameleon-like enemy.
Black Shadow	Scorpion	$34.95	Save earth from a deadly asteroid.
Blood Money	Psygnosis	$49.95	Sequel to Menace.
Bomb Busters	ReadySoft	$29.95	Bombs to defuse.
Bubble Bobble	Taito	$39.95	Brontosaurus pair rescue friends from villain.
Bubble Ghost	Accolade	$19.95	Maneuver a bubble-blowing ghost.
Capone	Actionware	$39.95	1920's-style arcade shoot-'em up.
Captain Fizz	Psygnosis	$29.95	Two-player, co-operate-or-die alien blasting.
Castlevania	Konami Inc.	$44.95	Tour past blood-thristy rogues gallery.
Charon 5	Mindware	$34.95	Strategy and arcade action through 11 levels.
Clever and Smart	DigiTek	$34.95	Help two bumbling detectives.
Combat Course	Mindscape	$29.95	Train at a top-secret training camp.
Combat Zone	Keypunch	$19.95	Tank and helicopter combat.
Contra	Konami	$39.95	Guerilla warfare for the survival of the earth.
Cosmic Bouncer	ReadySoft	$29.95	Tennis ball comes to life.
Creature	Actionware	$39.95	Alien-eliminating while avoiding creature.
Crystal Hammer	Reline	$19.95	Breakout-style arcade game.
Dark Castle	Three-Sixty	$44.95	Battle the Black Knight.
Datastorm	Visionary Design	$39.95	Futuristic shoot 'em up.
Denaris	HardWired	$39.95	Help the Denarians shake the yoke of bondage.
Double Dragon	Arcadia	$39.99	Amiga version of a popular arcade game.
Double Dragon II	Virgin Mast.	$39.99	Martial arts for your Amiga.



WEIRD DREAMS™

Screens may vary

Steve went to the hospital for minor surgery. He left with major problems.

Sleeping is supposed to be the easiest part of going under the knife. But not for Steve. His dreams are trying to kill him.

To survive he must escape the sometimes frightening, sometimes laughable phantasms burrowing through his subconscious.

Does major medical cover something like this?

Win Great Prizes with Medalist "Medal Madness" Starting September 1.

NEW FROM

MEDALIST INTERNATIONAL

A marketing division of MicroProse Software, Inc.
180 Lakefront Drive • Hunt Valley, MD 21030

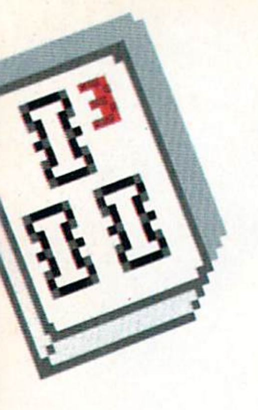
Circle 29 on Reader Service card.





Coming soon for IBM-PC/Tandy/compatibles, C-64, Amiga, and Atari ST. Can't find Weird Dreams? Call (301) 771-1151 x208 weekdays 8:30 am - 5:30 pm EST. © 1989 MicroProse Software, Inc. © 1987 Best Ever Games Company. Co-conception: Herman Serrano and Tony King. Co-design: Herman Serrano, James Hutchby and Tony King.





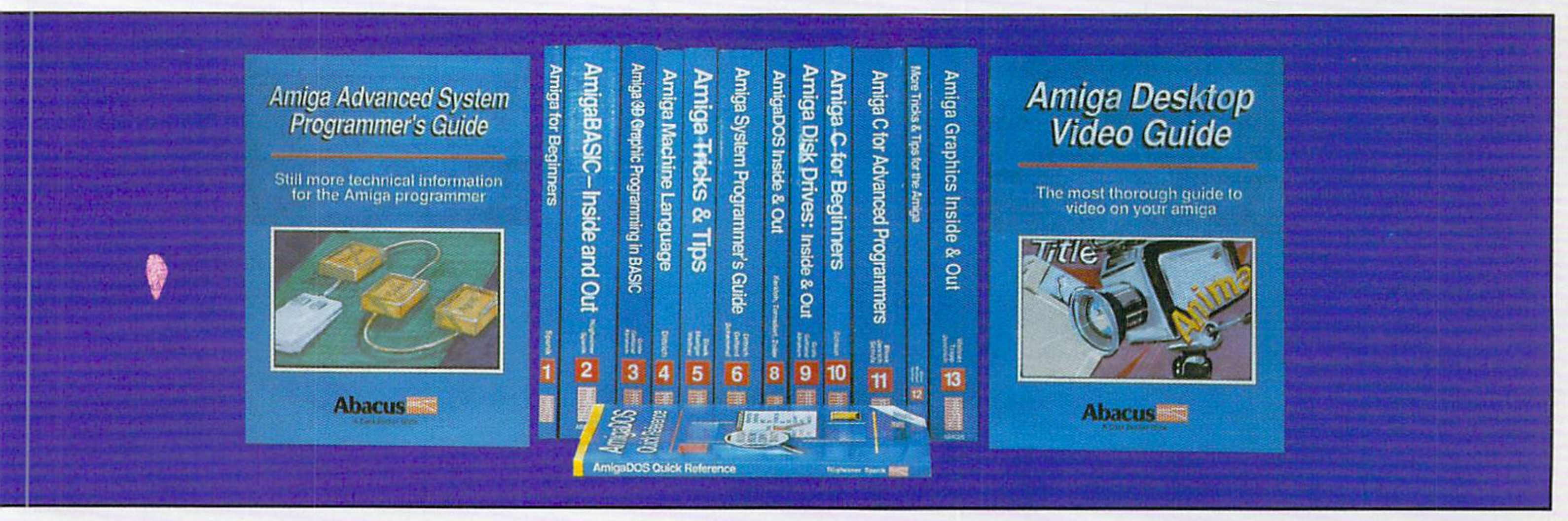
Dragon's Lair	ReadySoft	**$59.95**	Save the princess from Singe.
Ebonstar	MicroIllusions	**$24.95**	Arcade space game.
Eliminator	Hewson	**$34.95**	Space highway arcade action.
Emerald Mine I & II	Kingsoft	**$19.95**	Puzzles, each sold separately.
Evil Garden	Demonware	**$39.95**	Arcade action.
Exolon	Hewson	**$34.95**	Space adventure, arcade action.
Eye of Horus	Logotron	**$39.95**	Assemble pieces of body to vanquish evil.
Fiendish Freddy's	Mindscape	**$49.95**	Play circus games while tormented by clown.
Final Mission	DigiTek	**$29.95**	Dig and climb through 350 levels.
Fire and Forget	Titus Software	**$39.95**	Maneuver your car through enemy lines.
Firepower	MicroIllusions	**$24.95**	Arcade tank game can be used over modem.
Footman	Incognito	**$34.95**	Guide footman while being pursued.
Foundations Waste	Scorpion	**$34.95**	Escape from a prison camp planet.
Fright Night	MicroDeal	**$39.95**	You are a sinister, blood-sucking vampire.
Ganymed	ReadySoft	**$29.95**	Head Star Warriors against Deathbots.
Gauntlet II	Mindscape	**$49.95**	Thor, Thrya, Questor, and Merlin all return.
Gunshoot	DigiTek	**$34.95**	Shoot criminals but avoid the civilians.
Hex	Mark of Unicorn	**$39.95**	Arcade/strategy board-style game.
Hybris	Discovery	**$39.95**	Hyperspace arcade shoot 'em up.
Hyperdome	Scorpion	**$34.95**	Collect nine weapons for defense from aliens.
I Ludicrus	Scorpion	**$34.95**	Roman Colosseum fighting.
Indiana Jones: Crusade	Lucasfilm	**$39.95**	A three-level game with two-action events.
Indiana Jones: Temple	Mindscape	**$49.95**	Travel through caverns, tunnels.
Jinks	HardWired	**$29.95**	Fun with Jinks.
Joe Blade	DigiTek	**$34.95**	Rescue six world leaders held hostage.
JUG	Microdeal	**$39.95**	You are a humanoid in 36412 AD.
Keef the Thief	Electronic Arts	**$49.95**	Pick locks with crowbars.
Knight Force	Titus	**$44.95**	Liberate the princess.
Kybos	Bethesda	**$39.95**	Capture a 3-D, rotating cube.
Leatherneck	Microdeal	**$39.95**	US Marine Corps adventure.
Legend	Scorpion	**$34.95**	Good and evil forces struggle for control.
Leonardo	Centaur	**$44.95**	Steal diamonds while avoiding guards.
Marble Madness	Electronic Arts	**$19.95**	Based on popular arcade game.
Master Ninja	Paragon	**$29.95**	Martial arts adventure.
Menace	Psygnosis	**$29.95**	Move solid objects through 3-D playing field.
Netherworld	Hewson	**$34.95**	Mystical space journey action.
NY Warriors	Virgin Mast.	**$49.99**	Amiga version of the popular arcade game.
Off-Shore Warrior	Titus	**$39.95**	Anything goes speed boat race.
Ogre	Origin	**$29.95**	Battle a mechanized tank.
Operation Wolf	Taito	**$34.95**	Rescue hostages from South America.
Oswald	Centaur	**$44.95**	As a large, white bear, jump on ice.
P.O.W.	Actionware	**$39.95**	Rescue US soldiers from southeast Asia.
Paperboy	Mindscape	**$49.95**	Summon your best bike-riding skills.
Phantasm	Scorpion	**$34.95**	3-D solid object planetary exploration.
Powerdrome	Electronic Arts	**$39.95**	Race aircraft through tunnel courses.
Powerstyx	DigiTek	**$34.95**	Battle biting skulls and deadly crosses.
Prison	Actionware	**$39.95**	Escape from prison on abandoned planet.
QIX	Taito	**$39.95**	Elude waves of energy and destroy virus.
Rambo III	Taito	**$34.95**	Stage and carry out a daring resue.
Rampage	Activision	**$39.95**	Three monsters to control, cities to trash.
Rastan	Taito	**$34.95**	As ancient war lord, you destroy evil.
Renegade	Taito	**$34.95**	Street-style karate on subways and piers.
Road Raider	Mindscape	**$49.95**	Race against time, rebel killer cars.
Rush 'N Attack	Konami	**$39.95**	Free POWs armed with only a knife.
S.D.I.	Cinemaware	**$24.95**	Stop ruthless KGB fanatics.
Shinobi	Mindscape	**$49.95**	Fend-off thugs, rescue hostages.
Shoot 'Em Up Construct.	Accolade	**$19.95**	Create your own shoot 'em up games.
Side Arms	Capcom U.S.A.	**$39.95**	Defend Earth from aliens.
Sideshow	Actionware	**$44.95**	Carnival midway-style games.
Sky Shark	Taito	**$34.95**	Pilot P-40 Tiger Shark into enemy lines.

►



Too Many Books

'e publish too many books... too many that is if you have only a few questions or need only a limited amount of information about your Amiga. ut if you have a lot of questions, chances are one of our books will answer your questions. Just look at our range of titles:



There is a reason why we're the number one publisher of Amiga books. In fact, there are a number of reasons. Fifteen to be exact.

niga For Beginners-introduces you to Intuition, the ouse, windows, the CLI, and AmigaBASIC.
vers Workbench 1.3 Info **Best Seller**
BN 1-55755-021-2 178pp **$16.95**

ASIC Inside & Out*-step-by-step guide to nigaBASIC. Every AmigaBASIC topic includes arts, windows, p down menus, files, mouse and eech commands
vers Workbenc 3 Info **Best Seller**
BN 0-916439-8 548pp **$24.95**

Graphic Programming in BASIC*-details writing graphic programs: ray tracing in all resolutions, ht sources and shading, and more.
BN 1-55755-044-1 360pp **$19.95**

achine Language*-comprehensive introduction to 000 assembler ML programming covers 68000 croprocessor address modes and architecture, speech d sound and more.
BN 1-55755-025-5 264pp **$19.95**

icks & Tips*-presents dozens of tips on accessing raries from BASIC, custom character sets, nigaDOS, sound, important 68000 memory locations d much more!
BN 0-916439-88-7 342pp **$19.95**

System Programmer's Guide*-comprehensive guide to what goes on inside the Amiga in a single volume. Include the EXEC structure, I/O requests, interrupts and resource management, multitasking functions.
ISBN 1-55755-034-4 442pp **$34.95**

Advanced System Programmers Guide*-follow-up volume of thorough explanations of accessing the facilities provided by the libraries, input and output of the Amiga and more.
ISBN 1-55755-047-6 570pp **New** **$34.95**

AmigaDOS Inside & Out*-covers insides of AmigaDOS . Includes reference section, tasks and handling, DOS editors ED and EDIT, create and use script files, multitasking and more.
Covers Workbench 1.3 Info
ISBN 1-55755-041-7 274pp **$19.95**

Disk Drives Inside & Out*-in-depth reference covering the disk drives. Learn how to speed up data transfer, how copy protection works, computer viruses, DOS functions, loading, saving, seq. and random file organization, more.
ISBN 1-55755-042-5 346pp **$29.95**

C for Beginners*- introduction to learning C language. Explains elements using examples geared to the Amiga. Describes C library routines.
ISBN 1-55755-045-X 284pp **$19.95**

C for Advanced Programmers*-how compliers, assemblers and linkers work, using Intuition, combining assembly language and C codes, and more. Includes complete source code for a C based text editor.
ISBN 1-55755-046-8 650pp **New** **$34.95**

More Tricks & Tips*-a collection of easy to use techniques, hints for Amiga owners, disable fast RAM, NewCon and Pipe devices, more.
Covers Workbench 1.3 Info
ISBN 1-55755-051-4 218 pp **New** **$19.95**

Graphics - Inside & Out*-learn graphic programming in C with examples of points, lines, rectangles, polygons, colors and more. Contains a complete description of the Amiga graphic system-View, ViewPort, RastPort, bit-maps, screens, and windows.
ISBN 1-55755-052-2 610pp **$34.95**

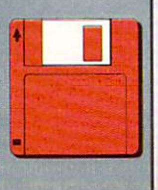
Desktop Video Guide-the most thorough guide to video on your Amiga. Explains Genlock, digitizing, Frame grabber, hardware, more.
ISBN 1-55755-057-3 240pp **New** **$19.95**

AmigaDOS Quick Reference-an easy-to-use reference tool for beginners and advanced programmers alike. You can quickly find commands by using the three handy indexes designed with the user in mind. Commands in alphabetical order for easy reference.
Covers Workbench 1.3 info
ISBN 1-55755-049-2 114pp **New Price** **$9.95**

Circle 124 on Reader Service card.

In U.S. and Canada add $4.00 shipping & handling • Foreign orders add $12.00 per item • MI residents add 4% sales tax

*Our books are filled with dozens of practical programming examples. You can save countless hours of typing by purchasing any of the optional disks. Each disk only $14.95



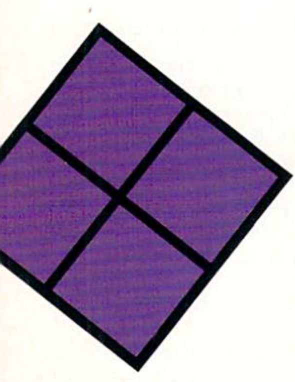
Abacus
Dept. L11, 5370 52nd Street SE
Grand Rapids, MI 49512
Phone (616) 698-0330 • Fax (616) 698-0325

To order toll free call
1-800-451-4319





Slip Stream	Microdeal	**$24.95**	Destroy aliens while flying through stream.
Space Harrier	Mindscape	**$49.95**	Space is your battlefield.
Space Pilot	Demonware	**$39.95**	Outer space blow 'em up.
Space Pilots.	Kingsoft	**$19.95**	Arcade with four-directional scrolling.
Space School Simulator	Scorpion	**$34.95**	Complete 20 different missions to graduate.
Speed Buggy	Elite	**$39.95**	Bumpy ride over rought terrain—fences.
Speedball	Image Works	**$39.95**	Futuristic sport—rapid-firing metal ball.
Star Wars	Broderbund	**$39.95**	Arcade adventure based on the film.
Sword of Sodan	Discovery	**$49.95**	Swords, demon, and wizard fighting.
Teenage Mutant Ninja	Ultra	**$39.95**	Team up and help scour the NY sewers.
Tetra Quest	Microdeal	**$39.95**	Athletes from several worlds assemble.
Tetris	Spectrum Holo.	**$34.95**	Manipulate odd-shaped pieces into position.
Thexder	Sierra On-Line	**$34.95**	Arcade battle.
Three Stooges, The	Cinemaware	**$49.95**	Help the tumultuous trio save an old lady.
Thunder Blade	Mindscape	**$49.95**	Dip to pick-off enemy patrols in cities.
Thunderboy	DigiTek	**$29.95**	Battle the dragon, deadly butterflies.
Thundercats	Elite	**$34.99**	Arcade fighing based on TV cartoon.
Tracers	MicroIllusions	**$24.95**	Tracer duty: law enforement hell.
Transputor	Scorpion	**$34.95**	3-D shoot'em up with sound effects.
Vampire's Empire	DigiTek	**$44.95**	Conquer the count with mirrors and garlic.
Vegas Gambler	California Drms.	**$39.95**	Slot machine, blackjack, roulette, video poker.
Viper	Incognito	**$34.95**	Arcade action.
Vortex	Visionary Design	**$44.95**	Enter the Vortex to survive.
Warlock	Three-Sixty	**$34.95**	Seek the stolen Karna.
Western Games	DigiTek	**$34.95**	Shootin', dancin', armwrestlin'. . .
Who Framed Roger Rabbit?	Buena Vista	**$44.95**	Based on the movie.
Xenophobe	Medalist	**$39.95**	Classic game of alien extermination.
Zoom!	Discovery	**$29.95**	3-D maze chase—50 levels, stereo sound.
Zynaps	Scorpion	**$34.95**	Four levels of space shoot-'em-up action.



FLIGHT SIMULATORS

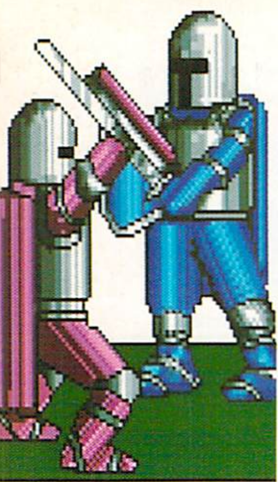
PRODUCT	COMPANY	PRICE	DESCRIPTION
Battle Hawks	Lucas Film	**$49.95**	World War II naval-air combat.
Blue Angels	Accolade	**$44.95**	Pilot one of the famous acrobatic jets.
F-19 Stealth Fighter	MicroProse	**$69.95**	3-D cockpit graphics, 11 viewing perspectives.
F/A-18 Interceptor	Electronic Arts	**$49.95**	Combat-flight simulator.
Falcon	Spectrum Holo.	**$49.95**	Dogfight with MIGs in an F-16.
Flight of the Intruder	Spectrum Holo.	**$49.95**	Vietnam-flight mission simulator.
Gunship	MicroProse	**$54.95**	Combat helicopter flight simulation.
Hawaiian Odyssey Scenery	SubLOGIC	**$29.95**	Role-playing adventure and flight simulator.
Instrument Pilot Scenery	SubLOGIC	**$149.95**	Supplements IRF flying environment.
Operation: Counterstrike	Spectrum Holo.	**$24.95**	Falcon extra missions disk.
Skyblaster	DigiTek	**$29.95**	Air-ground, 3-D combat simulations.
SkyChase	Maxis	**$39.95**	Two-player jet dogfight.
Super Huey	Cosmi	**$14.95**	Helicopter flight simulation.

GRAPHICS ADVENTURE

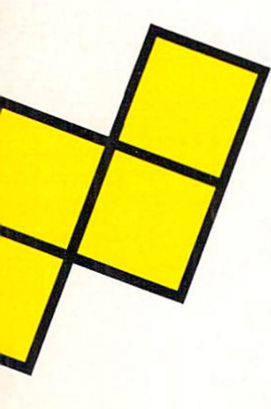
PRODUCT	COMPANY	PRICE	DESCRIPTION
Adventure Construction	Electronic Arts	**$19.95**	Make your own adventures.
Arazok's Tomb	Aegis	**$19.95**	Illustrated adventure

►

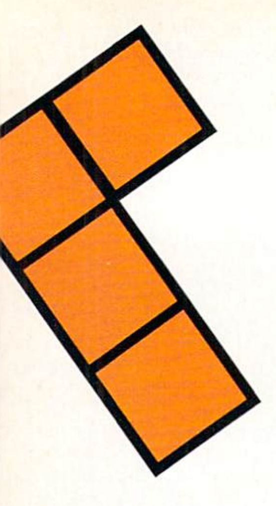




Autoduel	Origin	**$39.95**	Car battles for cash prizes.
Barbarian II	Psygnosis	**$39.95**	Sequel with more monsters, traps.
Battletech	Infocom	**$49.95**	Skill enhancements and tactical combat.
Black Cauldron	Sierra On Line	**$39.95**	Based upon Disney movie.
Bride of the Robot	Free Spirit	**$39.95**	Adult graphic text adventure.
Captain Blood	Mindscape	**$49.95**	As a half-machine, explore.
Carthage	Psygnosis	**$34.95**	From out of the past.
Chrono-Quest	Psygnosis	**$49.95**	Travel through time, solve murder.
Clavell's Shogun	Infocom	**$59.95**	Players embark to Japan.
Conquests of Camelot	Sierra On-Line	**$59.95**	Search for Holy Grail.
Cosmic Relief	Datasoft	**$34.95**	Help Professor Renegade save the world.
Deja Vu II: Lost	Icom Simulations	**$49.95**	1930-style gangster action.
Dr. Doom's Revenge	Paragon	**$39.95**	Comic book superheroes battle.
Dr. Plummets' House	MicroIllusions	**$34.95**	Gravity adventure.
Dragon's Lair	Visionary Design	**$59.95**	Control Dirk, rescue Daphne.
Dream Zone	Baudville	**$39.95**	Travel your dreamscape to exotic locales.
Dungeon Quest	Image tech	**$49.95**	Interactive graphic adventure.
Faery Tale Adventure	MicroIllusions	**$49.95**	Interactive adventure.
Flash Dragon	Psygnosis	**$34.95**	Dragon fighting.
Galactic Invasion	MicroIllusions	**$14.95**	Space battle.
Gettysburg:Turning Pt.	Strategic Sim.	**$59.95**	Re-creation of the Gettysburg battle.
Gold of the Realm	Magnetic Images	**$39.95**	Explore castle in search of hidden treasure.
Great States II	Designing Minds	**$39.95**	Geography game.
Herachules	Gainstar	**$39.95**	3-D role-playing, out-door adventure.
Hero's Quest	Sierra On-Line	**$59.95**	Adventure.
Indiana Jones, Crusade	Luscasfilm	**$49.95**	Seek the Holy Grail.
Infestation	Psygnosis	**$39.95**	Get rid of it.
Jetsons	MicroIllusions	**$39.95**	Interactive adventure.
Journey	Infocom	**$49.95**	Enter a world of dwarves, elves, and wizards.
Killing Game Show	Psygnosis	**$34.95**	A little turmoil.
Kings Quest I	Sierra On Line	**$49.95**	Explore the kingdom of Daventry.
Kings Quest II	Sierra On Line	**$49.95**	More fantasy with classical music.
Kings Quest III	Sierra On Line	**$49.95**	Once more, new fantasy adventures.
Land of the Legends	MicroIllusions	**$49.95**	Interactive adventure.
Leisure Suit Larry	Sierra On-Line	**$39.95**	Help Larry through his adventures.
Leisure Suit II	Sierra On-Line	**$39.95**	More mischief with Larry.
Lost Dutchman Mine	Magnetic Images	**$49.95**	Wander the deserts, mountains of Old West.
Maniac Mansion	Lucasfilm	**$44.95**	Rescue a cheerleader from a mad scientist.
Mindwalker	Commodore	**$49.95**	You are a mad scientist with a four-way split.
Moebius—The Orb	Origin Systems	**$39.95**	Fantasy adventure.
Murder on the Atlantic	Intracorp	**$39.95**	Solve a mystery.
Never Mind	Psygnosis	**$34.95**	Checkered field of play.
Pipe Dream	Lucasfilm	**$39.95**	Plummer's worst nightmare.
Planet of Lust	Free Spirit	**$39.95**	Sequel to Sex Vixens from Space.
Pocket Rockets.	Capcom U.S.A.	**$39.95**	Test-ride four 600cc motorcycles.
President Is Missing	Cosmi	**$39.95**	Find the Chief-Exec.
Prime Time	First Row	**$39.95**	Network direction simulation.
Quest For Excalibur	Infocom	**$49.95**	Fulfill your destiny as King Arthur.
Questron II	Strategic Sim.	**$49.95**	Prevent evil.
Raiders of the Wind	Gainstar	**$39.95**	Adventure.
Romantic Encounters	MicroIllusions	**$24.95**	Adult text adventure.
Savage	Medalist	**$34.95**	Heroic fantasy adventure.
Scary Mutant Space	ReadySoft	**$39.95**	Animated fighting sequences.
Sex Vixens from Space	Free Spirit	**$39.95**	Adult graphic text adventure.
Shadow of the Beast	Psygnosis	**$49.95**	Fight monsters, go through traps.
Space Ace	ReadySoft	**$59.95**	Sequel to Dragon's Lair.
Stryx	Psygnosis	**$34.95**	Fight robots in Dome City.
Talespin	Microdeal	**$49.95**	Create your own adventure game.
Tanglewood	Microdeal	**$39.95**	Help Uncle Arthur regain mining rights.
Targhan	Gainstar	**$39.95**	Adventure-action, role-playing arcade. ►



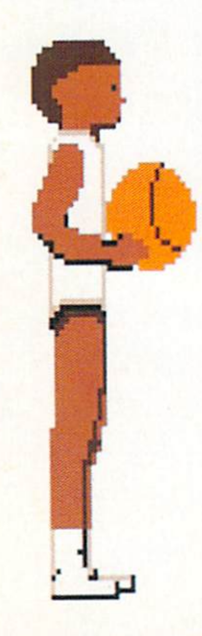




The Kristal	Cinemaware	**$49.95**	You are a space pirate on an epic quest.
The Last Inca	Free Spirit	**$39.95**	Save the Incas.
Time & Magic	Datasoft	**$39.95**	Lords of Time, Red Moon, Prince of Magik.
Time Bandit	Microdeal	**$39.95**	Three graphic/text adventures.
Times of Lore	Origin	**$39.95**	Rival lords battle for control.
Transylvania III	Polarware	**$39.95**	Illustrated adventure.
Twilight Zone	First Row	**$39.95**	Experience a bizarre storyline.
Twilight's Ransom	Paragon	**$34.95**	Get to the bottom of a dissappearance.
Universe 3	Omnitrend	**$49.95**	Futuristic who-dunnit, political overtones.
Wanderer	Elite	**$34.95**	3-D intergalactic trading game.
Weird Dreams	Medalist	**$39.95**	A game within your mind.
Where, USA is C. Sandiego	Broderbund	**$44.95**	Geography adventure with Almanac.
Where, World C. Sandiego	Broderbund	**$44.95**	Geography adventure with World Almanac.
Zac McKracken	Lucas Film	**$44.95**	Become a tabloid journalist.

ROLE-PLAYING ADVENTURE

PRODUCT	COMPANY	PRICE	DESCRIPTION
Alternate Reality	DataSoft	**$39.95**	Part I of a classic fantasy adventure.
Bard's Tale	Electronic Arts	**$49.95**	Fantasy—bring down the scourge.
Bard's Tale II	Interplay	**$59.95**	More scourge-scouring.
Black Tiger	Capcom U.S.A.	**$39.95**	Conquer foes and evil dragons.
Code Name: Ice Man	Sierra On-Line	**$59.95**	Role playing adventure.
Deathbringer	Cinemaware	**$39.95**	Bring down resurrected wizard.
Demon's Winter	Strategic Sims.	**$39.95**	Fantasy combined with adventure.
Dungeon Master	Software Heaven	**$39.95**	Open doors in an underground world.
Forgotton Worlds	Capcom U.S.A.	**$39.95**	Protect the Earth against an alien invasion.
Ghouls and Ghosts	Capcom U.S.A.	**$39.95**	Sequel to Ghosts and Goblins—rescue princess.
Hillsfar	Strategic Sims.	**$49.95**	Advanced Dungeons and Dragons.
Honeymooners	First Row	**$39.95**	Ralph, Ed, Trixie, and Alice.
IntelliType	Electronic Arts	**$19.95**	Murder, international intruigue.
J.R.R. Tolkein War	Melbourne House	**$49.99**	Follow in the footsteps of Frodo.
Last Duel	Capcom U.S.A.	**$39.95**	Pilot a futuristic craft for princess.
LED Storm	Capcom U.S.A.	**$39.95**	Futuristic road-race, changing environments.
Might & Magic II	New World	**$59.95**	250 animated monsters and auto-mapping.
Neuromancer	Interplay	**$44.95**	Role-playing adventure and simulation.
Phantasie II	Strategic Sims.	**$19.98**	Locate and destroy Dark Lord's evil orb.
Phantasie III	Strategic Sims.	**$39.95**	Final confrontation against the Dark Lord.
Pool of Radiance	Strategic Sims.	**$49.95**	Advanced Dungeons and Dragons.
Side Arms	Capcom U.S.A.	**$39.95**	Defend Earth from armed aliens.
Speedball	Cinemaware	**$39.95**	Futuristic heavy metal blood sport.
Swords of Twilight	Electronic Arts	**$44.95**	Travel to other worlds, fight shodowlords.
Twilight Zone, The	First Row	**$39.95**	Experience a bizarre storyline.
Ultima III	Origin	**$39.95**	A fiery island marks the return of evil.
Ultima IV	Origin	**$59.95**	Vanquish evil in this fantasy land.
Ultima V	Origin	**$59.95**	Seek the paths of Avatar.



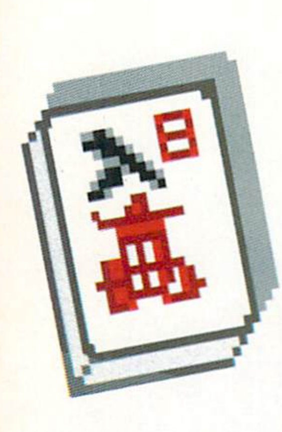
SPORTS

PRODUCT	COMPANY	PRICE	DESCRIPTION
3-D Pool	Medalist	**$34.95**	Simulation of indoor table game.
4×4 Off Road Racing	Epyx	**$19.95**	Down and dirty obstacle course racing.

►







4th and Inches	Accolade	**$14.95**	Football simulation.
British Open Courses	Moonlight Dev.	**$20.00**	Five British open hosts, Mean 18.
California Challenge	Accolade	**$19.95**	The Duel accessory disk—race West Coast.
California Games	Epyx	**$49.95**	Current California outdoor sports.
Championship Baseball	Mediagenic	**$39.95**	Baseball simulation.
Championship Basketball	Mediagenic	**$44.95**	Two-on-two basketball game.
Championship Golf	Mediagenic	**$39.95**	Golf simulation.
Classic American Courses	Moonlight Dev.	**$20.00**	Five American golfing favorites.
Crazy Cars	Titus	**$39.95**	Race cross-country in prestigious cars.
Downhill Challenge	Broderbund	**$34.95**	Ski-racing simulation.
Earl Weaver Baseball	Electronic Arts	**$49.95**	Baseball strategy.
E. W. Baseball Data Disk	Electronic Arts	**$12.95**	Data on '86, '87, and '88 major-league teams.
European Roadways	Accolade	**$19.95**	The Duel accessory disk—Europe's fastest.
Extra Course Disk #3	DigiTek	**$19.95**	Three more course for Hole-In-One.
F40 Pursuit Simulator	Titus	**$44.95**	Race the clock and the cops.
Famous Courses Vol. II	Accolade	**$19.95**	More courses for Mean 18 golf simulation.
Famous European Courses	Moonlight Dev.	**$20**	Top continental sites, Mean 18.
Fast Break	Accolade	**$44.95**	Three-on-three basketball simulation.
Fast Track	Medalist	**$39.95**	Hard driving racing excitement.
Ferrari Formula One	Electronic Arts	**$49.95**	Auto-racing simulation.
Final Assault	Epyx	**$19.95**	Mountain climbing challenge.
Gee Bee Air Rally	Mediagenic	**$39.95**	Airplane race.
GFL Champ. Football	Mediagenic	**$44.95**	Arcade football game.
Grand Prix Circuit	Accolade	**$44.95**	International racing simulation.
Great Resort Courses	Moonlight Dev.	**$20.00**	Five from Palm Springs to Puerto Rico.
Gridiron!	Bethesda	**$29.95**	Control practice or pro game.
Hardball!	Accolade	**$44.95**	Old-time baseball simulation.
Hardball II	Accolade	**$44.95**	Sequel with stats, viewpoints, amimation.
Heatwave: Offshore	Accolade	**$44.95**	Super boat racing simulation.
Hole-In-One Mini Golf	DigiTek	**$39.95**	Includes traditional and wacky holes.
Int'l Course Disk	Accolade	**$19.95**	Extra courses for Mean 18.
Int'l Champ. Wrestling	Avatar	**$32.95**	Professional wrestlers run, dance, and fight.
International Soccer	Microdeal	**$39.95**	Control the weather, number of players.
Jack Nicklaus' 18	Accolade	**$19.95**	Eighteen of Jack's favorite holes.
Keith Van Eron Soccer	Medalist	**$34.95**	Your players dive, slide, and jump.
Leader Board	Access	**$44.95**	Golf simulation.
Magic Johnson's Bball	Melbourne		Two-on-two play: 512K; 1MB: $49.99.
Major Champ. Courses	Accolade	**$19.95**	Jack Nicklaus' add-on course disk.
Mean 18	Accolade	**$44.95**	Golf simulation.
MicroLeague Baseball	MicroLeague	**$59.95**	Sports simulation.
Mouse Bowling	Silver	**$19.95**	Bowl by manipulating the mouse.
Muscle Cars.	Accolade	**$19.95**	The Duel accessory disk—5 hot 1960's-era cars.
Omni Play Basketball	Sport Time	**$49.95**	Five-on-five basketball.
One-On-One	Electronic Arts	**$19.95**	Larry Bird and Doctor J. do battle.
Out Run	Mindscape	**$49.95**	Kick up your engine, down shift your gears.
P.G.A. Championship Course	Moonlight Dev.	**$20.00**	Five P.G.A. courses.
P.G.A. Tour Courses I	Moonlight Dev.	**$20.00**	Five P.G.A. Tour courses.
Pocket Rockets	Capcom U.S.A.	**$39.95**	Test-ride four 600cc motorcycles.
Pro Football Facts	Inracorp	**$39.95**	NFL statistics.
Professional Football Sim	MicroSearch	**$34.95**	Support via modem, compiles statistics.
Pure Stat Football	Software Sims.	**$39.95**	Football simulation.
RVF Honda	Medalist	**$34.95**	Formula One motorbike racing.
Shark Attack	Melbourne	**$39.99**	Greg Norman's Ultimate Golf.
Street Sports Basketball	Epyx	**$19.95**	Three-on-three basketball.
Team Construction Disk	Accolade	**$14.95**	Assemble your own teams for 4th and Inches.
Test Drive	Accolade	**$19.95**	Sports car racing against the clock.
The Cycles	Accolade	**$44.95**	Int'l Grand Prix Motorcycle simulation.
The Duel: Test Drive II	Accolade	**$44.95**	Head-to-head match, Ferrari vs. Porsche.
The Supercars	Accolade	**$19.95**	The Duel accessory disk.
Tournament Disk #1	Access	**$19.95**	Courses for Leader Board.

►



It doesn't take a computer to figure out the difference.

The difference between the GEnie™ service and CompuServe® could make a big difference to you. Here's why. GEnie's rate for 1200 baud access is just $6 per non-prime hour.* Theirs is more than twice as much. Which means that with GEnie you can stay online longer for a whole lot less.

And that means more time to enjoy more of GEnie's services. Like valuable computer RoundTables. Exciting multi-player games. Useful financial information and much more. All at hourly rates designed to allow you to spend more time online. Not more money.

And with GEnie signing up is as easy as one, two, three.

(1) Set your modem for local echo (half duplex), 300 or 1200 baud.
(2) Dial 1-800-638-8369. When connected, you just enter HHH.
(3) At the U#= prompt simply enter XTX99626,GEnie then RETURN.

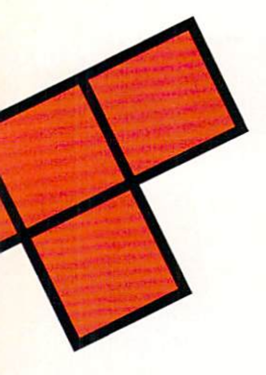
And have a major credit card or your checking account number ready. For information in the U.S. or Canada, call 1-800-638-9636. Or write GE Information Services, 401 North Washington, Rockville, MD 20850.



We bring good things to life.

**Applies only in U.S. Mon.-Fri. 6PM-8AM local time and all day Sat., Sun., and national holidays. Subject to service availability. Some services may be subject to a surcharge. Prices effective May 1, 1989.*





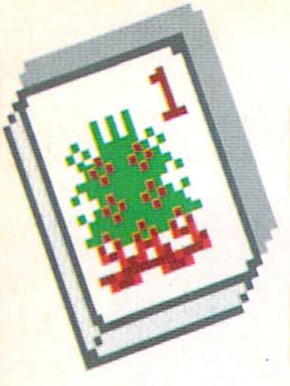
Turbo	MicroIllusions	**$24.95**	Auto racing.
TV Sports: Basketball	Cinemaware	**$39.95**	Create and edit players, original plays.
TV Sports: Football	Cinemaware	**$49.95**	Track indviduals and teams.
U.S. Open Courses II	Moonlight Dev.	**$20.00**	Five sites of 16 US opens.
Vette!	Spectrum Holo.	**$49.95**	Race European sports cars.
Wayne Gretzky Hockey	Bethesda	**$49.95**	Create teams, individual players.
Wind Surf Willy	Gainstar	**$39.95**	Wind-surfing competition.
Winter Challenge	Thunder Mtn.	**$14.95**	Olympic-sports simulation.
Winter Games	Epyx	**$49.95**	Six international sporting events.
World Class Disk	Access	**$19.95**	Harbour Town, Sunningdale, Dorado Beach.
World Games	Epyx	**$19.95**	Cliff-diving, sumo-wrestling, caber-tossing.
World Tour Golf	Electronic Arts	**$19.95**	Golf simulation—over 20 famous courses.
World Trophy Soccer	Melbourne House	**$39.99**	Rick Davie's soccer: 512K, 1MB: $49.99.
Zany Golf	Electronic Arts	**$39.95**	Miniature golf with unusual field of play.

STRATEGY

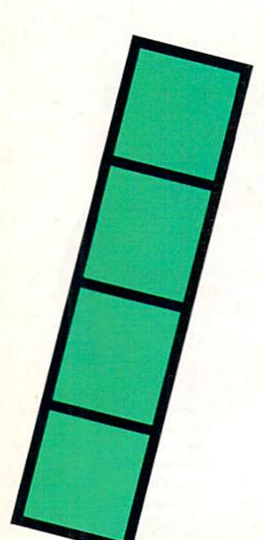
PRODUCT	COMPANY	PRICE	DESCRIPTION
Amegas	DigiTek	**$34.95**	Bounce, shoot, slam, and juggle.
Android Decision	Datasoft	**$34.95**	Two robot cities battle for total control.
Annals of Rome	Datasoft	**$34.95**	Based on the rise of the Roman empire.
Balance of Power	Mindscape	**$49.95**	Geopolitical simulation.
Battle Chess	Interplay	**$49.95**	Chess pieces engage in mortal combat.
Bingo Parlor	Silver	**$19.95**	Talking game for up to 10 players.
Blackjack Academy	MicroIllusions	**$24.95**	Teaches and plays.
Blackjack & Solitaire	Erisian	**$29.95**	Carlos Monte's blackjack and Klondike.
Blitzkrieg	Command Sims.	**$52.95**	Battle of the Bulge simulation.
Boomeraid	TSA Media	**$30.50**	Define math functions to proceed.
Breach	OmniTrend	**$39.95**	Tactical squad combat game.
Breach 2	Omnitrend	**$49.95**	More futuristic role-playing combat.
Bridge 5.0	Artworx	**$34.95**	Contract bridge, five-card bidding.
Casino Fever	ETHOS	**$39.95**	Roulette, blackjack, poker, and craps.
Centerfold Squares	Artworx	**$29.95**	Pits you against a centerfold opponent.
Chessmate	Dark Horse	**$29.95**	Chess simulation.
Clue Master Detective	Leisure Genius	**$39.00**	Computer version of popular board game.
Colossus Chess X	Artworx	**$34.95**	Computer opponent learns strategy.
Computer Scrabble	Electronic Arts	**$39.95**	Computer version of crossword board game.
Craps Academy	MicroIllusions	**$24.95**	Learn and play craps.
Cribbage King/Gin King	Software Tool.	**$59.95**	Challenge one of seven personalities.
Crossword Creator	Polyglot	**$49.95**	Create crossword puzzles—3-D graphics.
Distant Armies	Eagle Tree	**$44.95**	A playing history; historical versions.
Dominoes	Polyglot	**$24.95**	Classic board game, sound, 3-D graphics.
Empire	Interstel	**$49.95**	Interplanetary imperialism simulation.
Fidelity Chessmaster	Software Tool.	**$49.95**	New and improved chess.
Financial Time Machine	First Row	**$39.95**	Economics simulation.
Fire Brigaid	Panther Games	**$44.95**	War simulation.
Global Commander	Datasoft	**$39.95**	Negotiate—maintain world peace.
Gold of the Americas	Strategic Stud.	**$39.95**	Command expeditions to Europe.
Golden Pyramid	Micro Entert.	**$19.95**	Patterned after Wheel of Fortune.
Gone Fish'n	Interstel	**$44.95**	Fishing without bait.
Halls of Montezuma	Strategic Stud.	**$39.95**	You are there... Iwo Jima, Mexico City.
Hollywood Poker	DigiTek	**$34.95**	Strip poker game with digitized opponents.
Ishido	Epyx	**$49.95**	Ancient oriental board game.
Jigsaw Puzzlemania	Artworx	**$29.95**	Place jigsaw shapes in six puzzles.
Kamfgruppe	Strategic Sim.	**$59.95**	WWII tank warfare.
Kikugi	Image tech	**$39.95**	Based on a marble-jumping game.







Life & Death	Software Tool.	**$49.95**	Treat patients: diagnosis to operation.
Lightforce	TSA Media	**$39.50**	Science knowledge helps you advance.
Lottery Magic	Slipped Disk	**$24.95**	Increase your odds with data.
LottoMaster	Gladstone Prod.	**$29.95**	Wheeling systems for lotteries.
Monopoly	Leisure Genius	**$39.99**	Computer version of the popular game.
Nuclear War	New World	**$49.95**	Survive nuclear war and conquer the world.
Obsession	Image Tech	**$29.95**	Ancient strategy game.
Omega	Origin	**$49.95**	Build the first military cybertank.
Paladin	OmniTrend	**$39.95**	Animated combat fantasy.
Poker Solitaire	ETHOS	**$39.95**	Play 12 hands of stud poker at once.
Ports of Call	Aegis	**$29.95**	Wealth on the high seas—shipping.
Puppy Love	Addison-Wesley	**$29.95**	Acquire computer literacy.
Puzzle Buster	Gladstone Prods.	**$39.95**	Puzzle-solving help.
Reach for the Stars	Strategic Studs.	**$45.00**	Fantastic attempt to rule the galaxy.
Rebel Charge	Strategic Sims.	**$59.95**	At Chicamuauga: the South's last offensive.
Red Lightning	Strategic Sims.	**$59.95**	Simulation of potential war in central Europe.
Risk	Leisure Genius	**$39.99**	Computer version of popular board game.
Roadwar 2000	Strategic Sims.	**$39.95**	Fight bacterial warfare in the US.
Roadwar Europa	Strategic Sims.	**$ 9.95**	Stop futuristic terrorists.
Rock Challenge	ReadySoft	**$39.95**	Rock music trivia.
Scrabble	Leisure Genius	**$39.99**	Computer version of popular board game.
Serayachi Campaign	OmniTrend	**$24.95**	Combat scenario disk for Breach.
Shanghai	Mediagenic	**$39.95**	Strategy board game.
SimCity	Broderbund	**$44.95**	City control simulation.
Solitaire Royale	Spectrum Holo.	**$34.95**	Eight varieties with three for children.
Sorceror Lord	Datasoft	**$34.95**	Stop the advancement of the Shadowlord.
SPOC Collection	SPOC	**$25.00**	30 games and puzzles for the A500.
Star Command	Strategic Sims.	**$49.95**	Create a force of eight startroopers.
Starfleet I	Interstel	**$54.95**	Soar through hyperspace,battle Krellans.
Stellar Conflict	PAR Software	**$39.95**	Space-conquest strategy game.
Stellar Crusade	Strategic Sims.	**$54.95**	Exploration, economic power, conquest.
Strip Poker II	Artworx	**$39.95**	Poker game, two computerized opponents.
Tank Attack	Artworx	**$29.95**	Command a tank corps and capture enemy.
Targis	Incognito	**$34.95**	Puzzle.
Tech	Gainstar	**$39.95**	Surround the enemy and trap them.
TeleEpic	Telegames	**$39.95**	The Medieval version with axes and swords.
Telegames	Telegames	**$34.95**	Chess checkers and backgammon by modem.
Telewar II	Telegames	**$39.95**	New terrains and enhanced play.
The Enigma Device	King Publishing	**$39.95**	Crytograms—1000 puzzles or make your own.
The Scrolls of Talmouth	OmniTrend	**$24.95**	16-quests for Paladin.
Their Finest Hour	Lucasfilm	**$59.95**	The Battle of Britain: German or British.
TrianGo	California Drms.	**$39.95**	Place objects on a hexagonal field.
Video Vegas	Baudville	**$34.95**	Gambling simulation.
White Death	Command Sims.	**$52.95**	World War II-Eastern front battle simulation.
Wordplex	PAR Software	**$39.95**	Wheel-of-fortune type game for up to six.
WordPlex Data Disks	PAR Software	**$29.95**	Extra phrases for Wordplex program disk.
World Snooker	Artworx	**$24.95**	Pool and billiards simulation.



TEXT ADVENTURE

PRODUCT	COMPANY	PRICE	DESCRIPTION
A Mind Forever Voyaging	Infocom	**$14.95**	Mail order only.
Ballyhoo	Infocom	**$14.95**	Mail order only.
Beyond Zork	Infocom	**$19.95**	Illustrated adventure—mail order only.
Bureaucracy	Infocom	**$19.95**	Mail order only.
Crescent Hawk Inception	Infocom	**$49.95**	Mail order only.

BAD TO THE BONE

These are the streets. And there are no rules when you do battle here.

STREETFIGHTER is strictly survival of the fittest against 8 of the baddest dudes from around the world. Watch out for flying scissor kicks, lethal Ninja weapons, and other evil tricks. Block their attacks while you counter with jabs and roundhouse kicks. Don't drop your guard cause these guys aren't just b-b-b-b-bad. They're "Bad to the Bone."

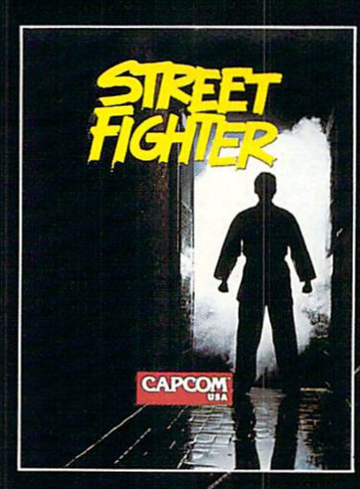
So see your favorite software retailer or call Capcom U.S.A. 408-727-1665. You don't want to keep these guys waiting!



Try a roundhouse kick against an English street tough.



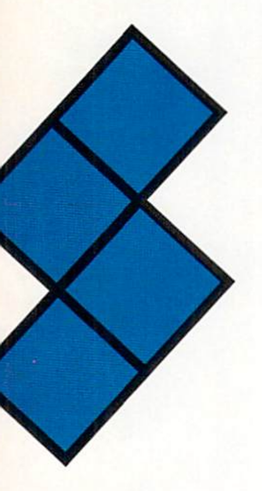
Dodge the lethal Ninja weapons of Geki.



Circle 12 on Reader Service card.

CAPCOM® USA





Cutthroats	Infocom	**$14.95**	Mail order only.
Deadline	Infocom	**$ 9.95**	Mail order only.
Enchanter	Infocom	**$14.95**	Mail order only.
Hitchhikers Guide	Infocom	**$14.95**	Mail order only.
Hollywood Hijinx	Infocom	**$14.95**	Mail order only.
Infidel	Infocom	**$ 9.95**	Mail order only.
Lancelot	Datasoft	**$39.95**	Interactive King Arthur and knights quest.
Lurking Horror	Infocom	**$14.95**	Mail order only.
Moonmist	Infocom	**$39.95**	Mail order only.
Plundered Hearts	Infocom	**$14.95**	Mail order only.
Scavenger Hunt I:	Aurum	**$49.95**	Adventure Through Time; artifact gathering.
Seastalker	Infocom	**$ 9.95**	Mail order only.
Sherlock: The Riddle	Infocom	**$34.95**	Mail order only.
Starcross	Infocom	**$ 9.95**	Mail order only.
Stationfall	Infocom	**$14.95**	Mail order only.
Suspect	Infocom	**$14.95**	Mail order only.
Suspended	Infocom	**$ 9.95**	Mail order only.
Trinity	Infocom	**$14.95**	Mail order only.
Wishbringer	Infocom	**$14.95**	Mail order only.
Witness	Infocom	**$14.95**	Mail order only.
Zork I	Infocom	**$14.95**	Mail order only.
Zork Trilogy	Infocom	**$49.96**	Zork I II and III, mail order only.

Company List

Access Software
545 West 500 South
Bountiful, UT 84010
800/824-2549

Accolade
550 S. Winchester Blvd.
Suite 200
San Jose, CA 95128
408/296-8400

Actionware Inc.
38 W. 255 Deerpath Rd.
Batavia, IL 60510
312/879-8998

Activision
3885 Bohannon Dr.
Menlo Park, CA 94025
415/329-0500

Addison-Wesley
Jacob Way
Reading, MA 01867
617/944-3700

Aegis Development
2115 Pico Blvd.
Santa Monica, CA 90405
213/392-9972

American Software Distributors
RR 1 Box 290
Bldg. 30
Urbana, IL 61801
217/643-2050

Antic Publishing
544 Second St.
San Francisco, CA 94107
415/957-0886

Arcadia
distributed by Electronic Arts

Artworx
1844 Penfield Rd.
Penfield, NY 14526
716/385-6120
800/828-6573

Aurum Software
PO Box 5392
Ventura, CA 93003
805/659-3570

Avatar Consulting
distributed by Digital Wizards

Baudville
5380 52nd St. SE
Grand Rapids, MI 49508
616/698-0888

Bethesda Softworks
15235 Shady Grove Rd.
Suite 100
Rockville, MD 20850
301/926-8300

Britannica Software
345 Fourth St.
San Francisco, CA 94107
415/546-1866

Broderbund Software Inc.
17 Paul Dr.
San Rafael, CA 94903-2101
800/527-6263

Brown Wagh Publishing
16795 Lark Ave.
Suite 210
Los Gatos, CA 95030
408/395-3838
800/451-0900

Buena Vista Software
500 S. Buena Vista St.
Burbank, CA 91521
818/569-7397

California Dreams
780 Montague Expwy #403
San Jose, CA 95131
408/435-1445

Cinemaware Corp.
4165 Thousand Oaks Blvd.
Westlake Village, CA 91362
805/495-6515

Command Simulations
Bldg. 3, 297 North St.
Hyannis, MA 02601
617/790-1994

Commodore Business Machines
1200 Wilson Dr.
West Chester, PA 19380
215/436-4200

Computer Software Services
2150 Executive Dr.
Addison, IL 60101
312/620-4444

Cosmi Corp.
431 N. Figueroa St.
Wilmington, CA 90744
213/835-9687
800/843-0537 ►

SANTA CLAUS IS COMING TO TOWN

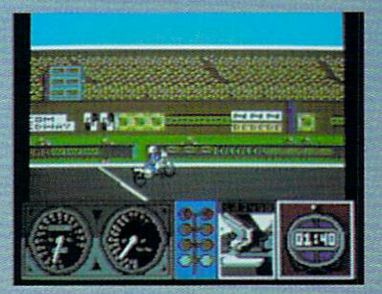
Better watch out!

After a test ride on Pocket Rockets, the high-speed motorcycle simulation game, Santa picked up a new sleigh that will make this year's rounds faster than ever. And whether you've been naughty or nice, you could win this Suzuki 600 Katana during "Santa's Sleigh Giveaway" in January.

Meanwhile, experience all the thrills and spills of high-speed racing with machines that take you from zero to 60 in under four seconds. Already gaining critical acclaim, Pocket Rockets lets you choose from four of the quickest, most exotic bikes on the planet. The action's as real as the adrenaline you'll feel.

Then, enter "Santa's Sleigh Giveaway" from Capcom U.S.A. Besides the chance to win a new Suzuki motorcycle, you could get a Bell full coverage helmet, or Capcom computer game software. Look to enter in all Capcom computer game packages or visit your favorite computer game retailer for more information. Capcom's belated Christmas giveaway is just around the bend so don't miss out on your chance to win!





LEFT: *Try your skill against the clock with a couple of laps around the test track.* **RIGHT:** *Drag racing demands a quick wrist and fast shifting. Just don't blow the engine!*

Circle 86 on Reader Service card.

POCKET ROCKETS

CAPCOM USA

SWEEPSTAKES RULES How to Enter:

1. NO PURCHASE NECESSARY. Fill out and mail official entry found in package or you can enter by hand printing your name, address and zip code on a 3" x 5" piece of paper and mailing it to CAPCOM Santa's Sleigh Giveaway, 3303 Scott Blvd., Santa Clara, CA 95054. Enter as often as you wish. Each entry must be mailed separately by JANUARY 15, 1990. No mechanical reproductions of entry will be accepted and all mail-in entries must be received at the above address by JANUARY 31, 1990. No responsibility is assumed for lost, late, misdirected, or damaged entries.

2. Prize winners will be determined by means of a random drawing to be conducted by an independent judging organization whose decision shall be final. All prizes listed will be awarded, but there can be only one prize winner per household, group or organization. Odds of winning depend on the number of entries received. Approximate grand prize retail value is as follows: Suzuki Katana $4,495.00. Winners will be notified by mail by FEBRUARY 15, 1990 and may be required to execute affidavits and advertising release. Taxes on prize winnings are solely the responsibility of the winners.

3. Sweepstakes is open to U.S. residents except employees of CAPCOM U.S.A. and their immediate families, its subsidiaries and affiliates, its advertising and promotional agencies, and the judging firm. Prizes won by minors may be awarded to parent or legal guardian. Void where prohibited or restricted by law. All Federal, State and Local regulations apply. For a list of major prize winners send a stamped, self-addressed envelope to CAPCOM Santa's Sleigh Giveaway Winners List, 3303 Scott Blvd., Santa Clara, CA 95054 by MARCH 31, 1990.





Data Disks
distributed by Electronic Arts

Data East USA
470 Needles Dr.
San Jose, CA 95112
408/286-7074

DataSoft
distributed by Electronic Arts

Demonware
distributed by Impulse

Designing Minds, Inc.
3006 N. Main
Logan, UT 84321
801/752-2500

Digital Wizards
9307 Carlton Hills Blvd.
Santee, CA 92071
619/449-5218

DigiTek Inc.
8910 N. Dale
Mabry, Suite 37
Tampa, FL 33614
813/933-8023

Discovery Software International Inc.
163 Conduit St.
Annapolis, MD 21401
301/268-9877

Eagle Tree Software
PO Box 164
Hopewell, VA 23860
804/452-0623

Electronic Arts
1820 Gateway Dr.
San Mateo, CA 94404
415/571-7171

Elite Systems Ltd.
Eastern Ave.
Litchfield
Staffs, England WS13 6RX
0543/414188
US distributor: see Keypunch

Epyx
600 Galveston Dr.
Redwood City, CA 94063
415/366-0606

Erisian Software Products
132 Cedar Dunes
New Smyrna Beach, FL 32069
904/423-3949

Finally Technologies
1377 Ninth Ave.
San Francisco, CA 94122
415/928-5431

First Row Software Publishing
3624 Market St.
Philadelphia, PA 19104
215/642-5541

Free Spirit Software Inc.
PO Box 128
58 Noble St.
Kutztown, PA 19530
215/683-5609

Gainstar
distributed by DigiTek

Gladstone
7744 Dickening Ave.
Dept. 12
Whittier, CA 90602
619/792-0593

Hard Wired
PO Box 789 Streetsville
Mississauga, Ontario
Canada L5M 2C2
800/387-8192 (US)
416/828-0913

Hewson
distributed by Medalist

Icom Simulation
648 S. Wheeling Rd.
Wheeling, IL 60090
312/520-4440

Image Tech
9276 Adelphi Rd.
Suite 102
Adelphi, MD 20783-2029

Image Works
distributed by Cinemaware

Impulse, Inc.
6860 Shingle Creek Pkwy. #110
Minneapolis, MN 55430
612/566-0221
800/328-0184

Infinity Software
1144 65th St., Suite C
Emeryville, CA 94608
415/420-1551

Infocom
125 CambridgePark Dr.
Cambridge, MA 02140
617/492-6000

Infocom Mail Orders:
Triton Products Co.
Order Center
PO Box 8123
San Francisco, CA 94128-9986
800/227-6900

Innerprise
128 Cockeysville Rd.
Hunt Valley, MD 21030
301/785-2266

Interplay Productions
distributed by Mediagenic

Interstel
distributed by Electronic Arts

Intracorp Inc.
14160 SW 139th Court
Miami, FL 33186
800/468-7226

ISM Inc.
PO Box 247
Phoenix, MD 21131
301/666-2672

Jumpdisk
1493 Mountain View Ave.
Chico, CA 95926
916/343-7658

Keypunch Software
1221 Pioneer Building
St. Paul, MN 55101
612/292-1490

King Publishing
921 32nd St.
Sioux City, IA 51105
712/252-4604

Kingsoft
distributed by Impulse

Konami Inc.
815 Mittel Dr.
Wood Dale, IL 60191
312/595-1443

Leisure Genius
distributed by Virgin Mastertronic

Logotron
distributed by Britannica Software

Lucasfilm
distributed by Electronic Arts

Magnetic Images Company
PO Box 17422
Phoenix, AZ 85011
602/265-7849

Mandarin Software
distributed by Top Ten

Mark of the Unicorn
222 Third St.
Cambridge, MA 02142
617/576-2760

Mastertronic International, Inc.
711 West 17th St. Unit G9
Costa Mesa, CA 92627
714/631-1001

Maxis Software Inc.
953 Mt. View Dr.
Suite #113
LaFayette, CA 94549
415/376-6434

Medalist International
180 Lakefront Dr.
Hunt Valley, MD 21030
412/838-1166

Mediagenic
3885 Bohannon Dr.
Menlo Park, CA 94025
415/329-0800

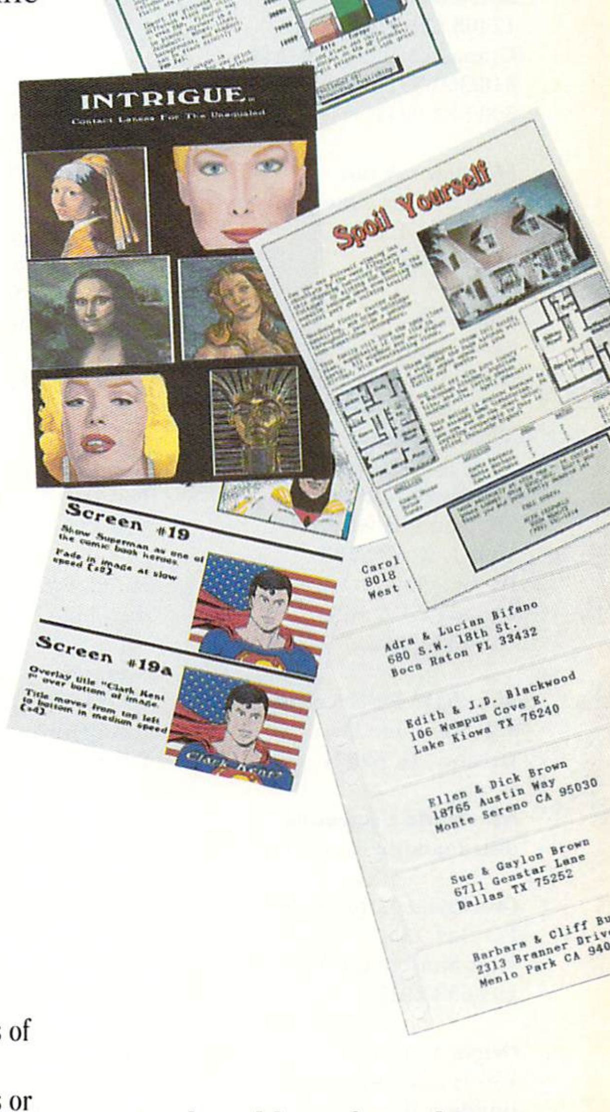
Melbourne House
distributed by Virgin Mastertronic

Mercury
PO Box 83
Wilton, CT 06897

MichTron
576 S. Telegraph
Pontiac, MI 48053
313/334-5700 ►

*"**Pen Pal** is clearly the first of the next generation of graphic wordprocessors...Save your money folks (and it won't take as much as you might think), **Pen Pal** is going to be required software for your Amiga."*

Tom Malcom; INF0 Magazine



*"Only had **Pen Pal** 3 hours and it's super!"*

"Best I've ever seen for any machine."

"Meets all my needs in one package."

"More fun than most games."

"Switched from Excellence!"

"The one we've been waiting for."

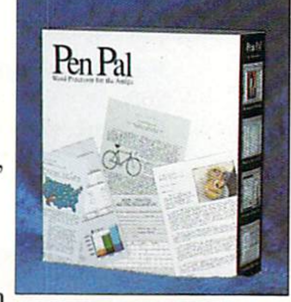
"Wheee!"

Direct quotes from Pen Pal registration cards

Just another word processor?

THINK AGAIN. Pen Pal is unlike any other. The printing and graphics are extraordinary. The value, exceptional.

Just look at these samples from various printers. The text and graphics are blended beautifully – words wrapped around pictures – pictures printed in original colors and resolutions – lines, boxes, shadows and borders added for emphasis – graphics mixed with letter quality fonts.



Requires Amiga 500, 1000, 2000 or 2500 with 1 Meg RAM and 1 disk drive.

WANT MORE FOR YOUR MONEY? Pen Pal manages all kinds of lists with names, addresses, dates and amounts. Printing reports, form letters or mailing labels couldn't be easier. Different size forms for invoices and phone messages can be designed and filled in, field by field.

The reviews and registration cards sum it up. Word processing, simple page-layout, database management, and forms fill-in have been combined into one easy-to-use, yet powerful program.

This is a steal. Grab it fast.

Pen Pal - Only $149.95

Developed by Softwood Company



(408) 395-3838 (in CA)
(800) 451-0900

Amiga is a trademark of Commodore Business Machines, Pen Pal is a trademark of SoftWood Company.

Circle 165 on Reader Service card.



Microdeal
distributed by MichTron

Micro Entertainment
14 Wisteria Way
South Portland, ME 04106
207/767-2664
800/255-5217

MicroIllusions
17408 Chatsworth St.
Granada Hills, CA 91344
818/360-3715
800/522-2041

MicroSearch Inc.
9896 SW Freeways
Houston, TX 77074
713/988-2818

Mindscape
3444 Dundee Rd.
Northbrook, IL 60062
312/480-7667
800/221-9884

Mindware International
33 Aliance Blvd.
Unit 1, Box 22158
Barrie, Ontario
Canada L4M 5R3
705/737-5998

Moonlight Development
329 Shoreline Place
Decatur, IL 62521

New World Computing
distributed by Electronic Arts

Omnitrend Software Inc.
PO Box 733
West Simsbury, CT 06092
203/658-6917

Origin Systems
136 Harvey Rd.
Building B
Londonderry, NH 03053
603/644-3360

Panther Games
PO Box 8 Hughes
ACT 2605
Australia
61 62 81 5150
US distributor: Computer Software Service

PAR Software Inc.
distributed by Brown Wagh

Paragon Software
distributed by Medalist

Polarware Software
1055 Paramount Parkway
Suite A
Batavia, IL 60510
312/232-1984

Polyglot Software
10431 Ardyce Ct.
Boise, ID 83704
208/375-3741

Psygnosis Ltd.
distributed by Computer Software Services
2150 Executive Dr.
Addison, IL 60101
800/669-4912

ReadySoft
PO Box 1222
Lewiston, NY 14092
416/731-4175

Reline Software
distributed by Constellation

Scorpion
19 Harbor Dr.
Lake Hopatcong, NJ 07849
201/663-0202

Sega Software
distributed by Mindscape

Sierra On-Line Inc.
P.O. Box 485
Coarsegold, CA 93614
209/683-4468

Signs Etc. By D. Knox
PO Box 628
Carmichael, CA 95609-0628
916/944-0790
800/634-2952

Silver Software
77 Mead St.
Bridgeport, CT 06610
203/366-7775

Slipped Disk
31044 John R
Madison Heights, MI 48071
313/583-9803

Snake Design Software
distributed by American Software

Software Heaven
6160 Lusk Blvd.
Suite C-206
San Diego, CA 92121
619/453-5711

Software Toolworks
distributed by Electronic Arts

Special Programs & Operations Company
Box 299
Kiowa, OK 74553
918/432-5774

Spectrum Holobyte
2061 Challenger Dr.
Alameda, CA 94501
415/522-3584

Spinnaker Software
1 Kendall Sq.
Cambridge, MA 02139
617/494-1200

SportTime
3187-G Airway Ave.
Costa Mesa, CA 92626
714/966-1311

Strategic Simulations
distributed by Electronic Arts

Strategic Studies
distributed by Electronic Arts

subLOGIC Corp.
713 Edgebrook Dr.
Champaign, IL 61820
217/359-8482

System 3 Software
Blenheim House
1 Ash Hill Dr.
Pinner, Middlesex HA5 2AG
01/866-5692

Taito Software Inc.
267 West Esplanade
North Vancouver, B.C.
Canada V7M 1A5
604/984-3344

Telegames
Box 123225
Fort Worth, TX 76121
817/244-4150

Terrific Software
544 Second St.
San Francisco, GA 94107
415/957-0886

Three-Sixty Inc.
2105 S Bascom Ave., Suite 290
Campbell, CA 95008
408/879-9144

Thunder Mountain
distributed by Mindscape

Titus Software Corp.
20432 Corisco St.
Chatsworth, CA 91311
818/709-3692

Top Ten Software
PO Box 1450
Oakhurst, CA 93644
209/683-7577

TSA Media
Claremont 6010
Western Australia
09/384-3047
US distributor: American Software

Ultra Software
distributed by Konami

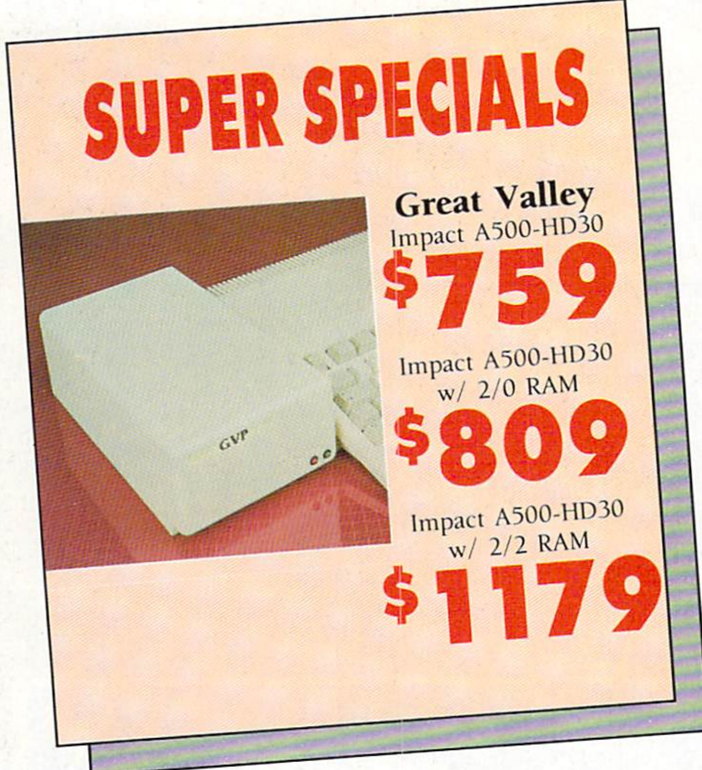
US Gold
distributed by Epyx

Virgin Mastertronic
18001 Cowan St.
Irvine, CA 92714
714/833-8710

Visionary Designs
15235 Shady Grove Rd.
Suite 100
Rockville, MD 20850
301/926-8300

Walt Disney Software
2600 W. Olive Ave.
Burbank, CA 91505
818/972-3440 ■

Amiga Specials Everyday



DISK DRIVES

Supra	
20MB Ext. (A500)	$559
20MB Ext. (A1000)	659
60MB Ext. (A500)	879
60MB Ext. (A1000)	1029
30MB Int. (A2000)	569
45MB Int. (A2000)	659
80MB Int. (A2000)	1159
Miniscribe	
20MB Int. 3½" 40MS	259
20MB Int. 3½" 65MS	239
C. Ltd.	
33MB Ext. (A500)	729
33MB Ext. (A1000)	769
44MB Ext. (A500)	799
44MB Ext. (A1000)	879
65MB Ext. (A500)	899
65MB Ext. (A1000)	939
33MB Int. (A2000)	659
44MB Int. (A2000)	1079
60MB Int. (A2000)	979
Great Valley	
Impact A2000-2/0	289
Impact A2000-2/2	$729
Impact A2000-HC/40Q	799
Impact A2000-HC/80Q	1199
Impact A500-2/2	499
Impact A500-HD20M	709
Impact A500-HD40Q	989

Call For Configurations Not Listed!



MIMETICS
Amigen Genlock
$139

Megatronics	
3½" Internal Air Drive	119
3½" External Air Drive	145

PRINTERS

Alps	
Allegro 24 24-Pin Flatbed	$319
Brother	
M-1109 100cps Dot Matrix	179
M-1709 240cps, 132 Color	369
Canon	
Canon BubbleJet 130	799
C.Ltd.	
Laser Xpress	2199
Epson	
LX-810 200cps, 80 Col.	179
FX-850 264cps, 80 Col.	339
FX-1050 264cps, 136 Col.	Call
LQ510 180cps, 24-Wire	339
LQ-850 330cps, 24-Wire	Call
Hewlett Packard	
ThinkJet 2225	329
Okidata	
Okimate 20 Color	139
ML-172 180cps, 80 Col.	199
ML-182 Turbo 220cps	239
ML-320 300cps, 80 Col.	359
Panasonic	
KX-P1180 192cps, 80 Col.	185
KX-P1191 280cps, 80 Col.	239
KX-P1124 192cps, 24-Wire	339
Star Micronics	
NR-1000 Rainbow Color	229

AUDIO/VIDEO

A-Squared	
Live-A1000	$229
Live-A500	299
Live-A2000	329
Anakin Research	
Easyl Draw A1000	349
Easyl Draw A500	349
Easyl Draw A2000	389
Digital Creations	
SuperGen Genlock	685
Magni	
4000 Genlock w/Remote Control	1839
Mimetics	
Midi (A1000)	42
Midi (A500/2000)	42
Microway	
Flicker Fixer	479
Progressive Peripherals	
Pro-Gen Genlock	359
Frame Grabber	519
Sunrize Industries	
Perfect Vision	199

AUDIO/VIDEO

Electric Color Splitter	$ 89
Perfect Sound	69
Image Scan	129
Summa	
APRO Draw w/Cursor	499

MODEMS

Anchor	
1200 Baud External	$ 99
2400 Baud External	159
Hayes	
Smartmodem 300	149
Smartmodem 1200	279
Smartmodem 2400	419
Practical Peripherals	
1200 Baud External	85
2400 Baud Internal	145
Supra	
SJ2400 External	119



SUPRA
2400 zi Int/2000
$139

BOARDS

Creative Microsystems Processor Accelerator	
A500/A2000	$175
A1000	189
Microbotics	
Starboard II	Call
Upperdeck	45
8 Up (A2000)	179
Hard Frame	249
Spirit Technology	
1.5MB w/OK (A1000)	239
1.5M w/OK (A500)	239
Supra	
8MB Board w/2mg	519





Computer Mail Order. Since 1981—Low prices, Large Selection, Fast Service.

Call 1-800-233-8950!

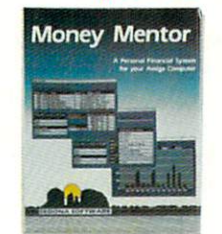
MONITORS

Magnavox	
8762 14" Comp/RGB	$249
14" Color RGB/Comp	259
Nec	
Multisync IIA	$499
Sony	
1302 13" Multiscan	699
1310 13" RGB	339

SOFTWARE

Accolade	
J. Nicholas Golf	$ 33
Test Drive II	29
Grand Prix Circuit	33
Action Ware	
P.O.W.	24
Prison	26
Creature	26
Aegis	
Draw 2000	159
Lights, Camera, Action	49
Videoscape 3D	119
Video Titler	95
ANImagic	69
Broderbund	
Where in The World	28
Fantavision	38
Sim City	32

Hot Special



SEDONA
Money Mentor
$53

Byte by Byte	
Animate 3D	105
Sculpt 3D	75
Sculpt 3D Excel	109
Sculpt/Animate 4D	429
Sculpt/Animate 4D Jr.	95
Centaur Software	
BAD	33

SOFTWARE

Contriver	
M4 Replacement Mouse	$ 40
C.Ltd.	
Jet Master	50
Cinemaware	
Lords of The Rising Sun	32
Rocket Ranger	32
Three Stooges	32
TV Sports	32
Krystal	33
Digitek	
Hole-in-One	25
Hole-in-One Courses	14
Discovery	
Marauder II	24
Sword of Sodan	32

Best Buy



MICRO SYSTEMS
The Works! Platinum
$175

Electronic Arts	
Master Ninja	21
Zany Golf	27
Deluxe Paint III	99
Epyx	
California Games	28
Battleship	21
Technocop	33
Gold Disk	
Design 3D	66
Desktop Budget	48
Movie Setter	64
Professional Page 1.2	219
Incognito	
Kings of England	30
Melbourne House	
War in Middle Earth	32
MicroDeal	
AMAS (A500/2000)	64

CMO Super Savings Special

PANASONIC KX-P1124
192 cps, 24-Wire
$309

International Soccer	$ 28
Tetra Quest	27
Zero Gravity	19
Micro Systems	
Scribble! Platinum	92
Excellence	179
On-Line! Platinum	62
Micro Illusions	
Music-X	199
Mindscape	
Balance of Power 1990	32
Hostage	29
Psygnosis	
Baal	19
Ballistix	22
Fire Brigade	33

Chrono Quest	$ 34
Captain Fizz	25
Readysoft	
AMAX	129
Cosmic Bouncer	21
Spotlight	
Deathbringer	26
Speedball	26
Total Eclipse	26
Spectrum Holobyte	
Tetris	23
Falcon	29
TopTen	
Lombard Rally	27
WordPerfect	
WordPerfect	135
WordPerfect Library	79

Your Source for Hardware, Software & Peripherals

In U.S.A.

800-233-8950

In Canada call: 800-233-8949
All Other Areas call: 717-327-9575 Fax call: 717-327-1217
Educational, Governmental and Corporate Organizations
Call toll-free: 1-800-221-4283
CMO, 101 Reighard Ave., Dept. B9, Williamsport, PA 17701

Over 400,000 SATISFIED CUSTOMERS • MAJOR CREDIT CARDS ACCEPTED

POLICY: Add 3% (minimum $7.00) shipping and handling. Larger shipments may require additional charges. Personal and company checks require 3 weeks to clear. For faster delivery, use your credit card or send cashier's check or bank money order. Credit cards are not charged until we ship. Pennsylvania and Maryland residents add appropriate sales tax. All prices are U.S.A. prices and are subject to change. All items are subject to availability. Defective software will be replaced with the same item only. Hardware will be replaced or repaired at our discretion within the terms and limits of the manufacturer's warranty. We cannot guarantee compatibility. All sales are final and returned shipments are subject to a restocking fee. We are not responsible for typographic or photographic errors.



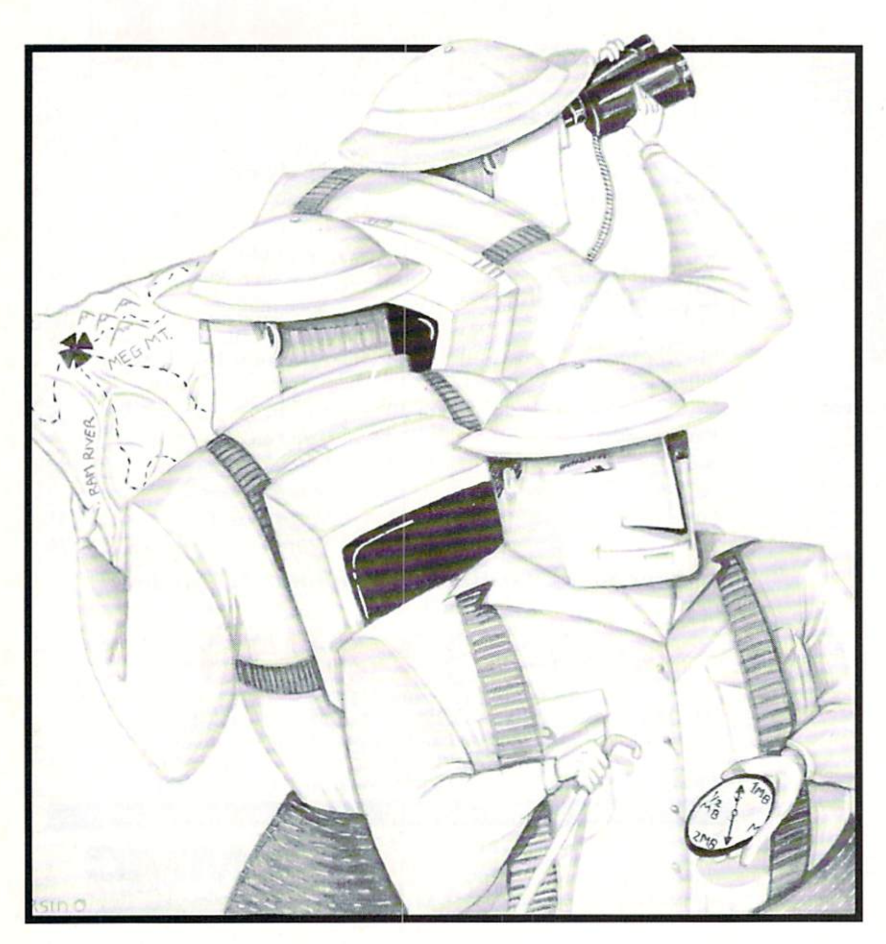




Computer Mail Order. Since 1981—Low Prices, Large Selection, Fast Service. B911

Circle 41 on Reader Service card.

Pick a Path



If 512K cramps your Amiga 500's style, follow our upgrade map to a multi-meg paradise.

By Louis R. Wallace

THE STRAIGHT AND narrow is not always the best road to take—especially for upgrading your Amiga 500's memory. When you feel the pinch of a 512K system heavily multitasking or trying to load a one-meg-plus animation or program, the easiest solution is to buy the cheapest memory expansion you can find. While a quick, straightforward solution, it may limit how you can further upgrade your system.

A500s, although lacking the slots of the Amiga 2000, are surprisingly flexible to expand. You can add memory on two buses, internally, or in combination with a hard drive. As expansion memory is transparent (it changes system behavior only by adding more space for programs to operate), your prime considerations when shopping are not speed and performance but future expansion plans and power consumption (the A500 has a notoriously minimal power supply). Above all, be sure the device you choose conforms to the auto-config standard (all devices mentioned in this article do) that lets the Amiga detect the device automatically on boot up and install it in the memory map—no installation routines are needed.

The first step is to buy an internal 512K RAM cartridge to bring your A500 up to one megabyte. The module plugs onto the bus in the recessed area under the machine. In addition to Commodore's A501, several models are available. (See the accompanying chart for details.)

Hop on the Bus

The easiest path to a multi-meg system is through the 86-pin bus on the left side of the A500. With the computer turned off, you simply snap a cartridge or small box on to the bus connector. The extra RAM is instantly available when you turn on the computer.

An excellent example of such a device is the tiny **Mini-Megs** cartridge from M.A.S.T. You can purchase it populated with 512K ($223), one ($299), or two ($449) megs of RAM. If you buy Mini-Megs with less than two megabytes, you can later send it to M.A.S.T. ►

ILLUSTRATED BY JOHN URSINO

for additional RAM. If you do not mind voiding your Mini-Megs warranty and feel technically confident, you can open the case and install the chips yourself. Mini-Megs' major limitation is that it does not have a pass-through port (i.e., a second port that accepts another expansion device and passes information between it and the computer). On the plus side, not expanding any further means the A500 has ample power for both the computer and the Mini-Megs cartridge. If you want only extra memory, then this limitation is not a problem. If you plan on someday expanding your system even more with a hard drive or specialized devices, Mini-Megs is not for you.

A more versatile bus upgrade is the **StarBoard-2/500** from Microbotics. Larger than Mini-Megs, the StarBoard-2/500 also snaps onto your expansion bus and is socketed for one megabyte of memory. You can purchase it unpopulated ($339) and install the chips yourself, or buy it complete with one megabyte of memory ($489.40). To keep strain off the A500's power supply, it comes with its own. The StarBoard also provides a pass-through bus expander.

The StarBoard-2/500 offers a more comprehensive upgrade path than just mere memory expansion. You can open your StarBoard-2/500 and install yet another megabyte of RAM or a multifunction board ($90) with a clock, parity-checked memory, an optional Motorola 68881 floating-point coprocessor, and a StickyDisk recoverable RAM disk, which retains its contents during a warm boot. More important is the StarDrive SCSI Module ($129.95), a SCSI hard-drive interface. With this option you can later add a standard SCSI hard-drive without having to scrap the investment already made in the StarBoard-2/500. Like all Microbotics hardware, the StarBoard-2/500 is a well-designed, well-supported product, and a good intermediate step between a standard system and a multi-meg, hard-drive system.

Mass Transit

If you know from the start you want expansion RAM and a hard drive, you should consider my favorite method of expansion—the all-in-one solution. Several companies have combined a hard-drive chassis and a memory-expansion cartridge into one easily installed product. After installing the hard drive, you just open its case and pop the RAM card in the slot. The accompanying power supply eases the load on the A500's original one.

A good choice is the **Impact A500-HD/XX** hard drive chassis from Great Valley Products. This small box quickly connects to the Amiga 500's bus and can contain from a 20MB ($650, including unpopulated RAM card) to an 80MB ($1429, including unpopulated RAM card) autobooting SCSI hard drive. For RAM expansion it has a slot for an optional two-megabyte RAM card ($550 populated). Should you need help setting up the system, GVP has an excellent record of customer support.

If you prefer the security of an all-Commodore system, check out the **A590** hard disk and RAM expansion chassis ($999). Pop it on the expansion bus and you add a 20MB hard disk and up to two megs of RAM.

Pacific Peripherals' **Synergy 500** hard disk and memory expansion system offers from a two megabyte RAM board ($149 unpopulated; $449 fully populated) and a hard disk ranging from 20MB ($599) to 60MB ($749). The drive is tethered to the bus expansion cartridge by a five-foot ribbon cable that gives you plenty of flexibility in positioning the drive on your desk.

Supra Corporation also designed its expansion in a two-piece system. The **SupraDrive SCSI Interface** ($199) hooks to the bus, contains up to two megabytes of memory ($549), and connects to any SCSI hard drive. (Supra sells from 20MB drives ($599) to 250MB custom-built drives.) Supra recently reaffirmed its commitment to product support by upgrading the performance of their hard drives and controllers.

A new entry in the RAM expansion market, Xetec now offers RAM boards for its A500 **Fasttrak** expansion chassis. Connected to the bus via a small host adapter (with a pass-through for other bus devices), the Fasttrak is an expansion chassis that contains an autobooting SCSI hard-disk controller ($399.95 alone), hard drive (complete systems from 20MB to 80MB for $699.95 to $1499.95), and RAM expansion slots. Xetec RAM boards can come configured with 512K ($99.95) to a full eight megabytes (price market dependent) of RAM.

The Subway

If you do not mind some extra work and risk, you can install a memory board inside your computer. The A500 was not designed for internal expansion, but at least two companies (Spirit Technology and Progressive Peripherals & Software) have successfully engineered internally mounted piggyback RAM boards that install on top of the motherboard.

To install either board, open your Amiga 500's case (thereby voiding your Commodore warranty), then remove the top, the keyboard, and the metal shield that covers the motherboard. The next phase is the most dangerous and delicate: Remove your 68000 ►

Internal 512K Upgrades

0K Clock/Calendar	Skyles	$ 49.95
0K RAM/Clock	C Ltd	40.00
512K Clock/Calendar	Datel	129.95
512K Clock/Calendar	Skyles	139.95
512K RAM	Supra Corp.	149.00
A501	Commodore	199.95
EXP-512	Progressive	169.95
MicroMegs	M.A.S.T.	105.00

CPU chip from the motherboard and carefully install it in the waiting socket on the piggyback board. Finally, insert the pins on the bottom of the piggyback board back into the now empty CPU socket on the motherboard. Be very careful to not bend any pins. When you reassemble your Amiga and power up, you will have the additional memory. If you are not comfortable with a screwdriver or leary about dismantling your computer, let an authorized Amiga service center perform the upgrade for you.

I installed a fully-populated, two-meg **SIN-500-2** board (Spirit Technology, $623; unpopulated $263) in about one hour. Each step is described clearly in the small manual. The only problem I had was that I inadvertently bent a few pins on the CPU while I was installing it in the piggyback board. Luckily, I was able to straighten them using needle-nose pliers. On power up I had two additional megs of autoconfig RAM in my A500.

The SIN-500-2 does use some of the A500's meager power supply, but, according to Spirit, it will work properly with the available power. Any additional expansion devices should have their own power supplies, or you should purchase Spirit's optional external power supply ($21) for the internal board.

In an earlier review, *AmigaWorld* criticized Spirit Technology's first internal A500 memory board for not being fully autoconfig and giving you incomplete access to the RAM on the board. I was happy to see that the problems were eliminated in this model. Before I installed the SIN-500-2, I was skeptical of the internal piggyback board technique, but now I must admit it's a viable upgrade option.

Progressive Peripherals & Software also has an internal RAM board, the **EXP-1000** ($299.95 unpopulated; $429.95 one megabyte). Offering the same features as the SIN-500-2, it provides only half the memory. The board does require more power, however, enough that Progressive recommends that you upgrade your power supply before installing the RAM board. I suspect the EXP-1000 has larger power requirements because it uses the cheaper 256K DRAMS chips, while the Spirit board uses one-meg DRAMS. The Spirit board has only 16 RAM chips for its two megs, while the EXP-1000 requires 32 RAM chips to give you one meg. More chips require more power.

Worth the Trip

While expansion memory is easy to install and transparent to run, the configuration you choose can make all the difference in your system. If you have no future upgrade plans, get a simple, easy-to-install external RAM cartridge, such as Mini-Megs. If you want to keep the possibility open for additional upgrades, then take a look at the StarBoard-2. An internal board, such as the SIN-500-2, could be the answer for the technically adept who want their RAM out of sight and expansion bus free. The best solution, but the most expensive, is to upgrade with more memory and a hard disk at the same time. Before you buy those extra megs, however, carefully examine your needs both now and in the future. Otherwise, you might look back and regret the road not taken. ■

Louis R. Wallace is AmigaWorld*'s Senior Editor, Technology. Write to him c/o* AmigaWorld *Editorial Dept., 80 Elm St., Peterborough, NH 03458.*

Manufacturers' Addresses

C Ltd
723 E. Skinner
Wichita, KS 67211
316/267-3807

Commodore Business Machines
1200 Wilson Dr.
West Chester, PA 19380
215/436-4200

Datel Computers
3430 E. Tropicana Ave.
Unit 6
Las Vegas, NV 89121
702/454-7700

Great Valley Products
PO Box 391
Malvern, PA 19355
215/889-9411

M.A.S.T.
3881 Benetar Way
Suite E
Chico, CA 95928
916/342-MAST

Microbotics
811 Alpha Dr.
Suite 335
Richardson, TX 75081
214/437-5330

Pacific Peripherals
1080 Hiawatha Ct.
Fremont, CA 94539
415/651-1905

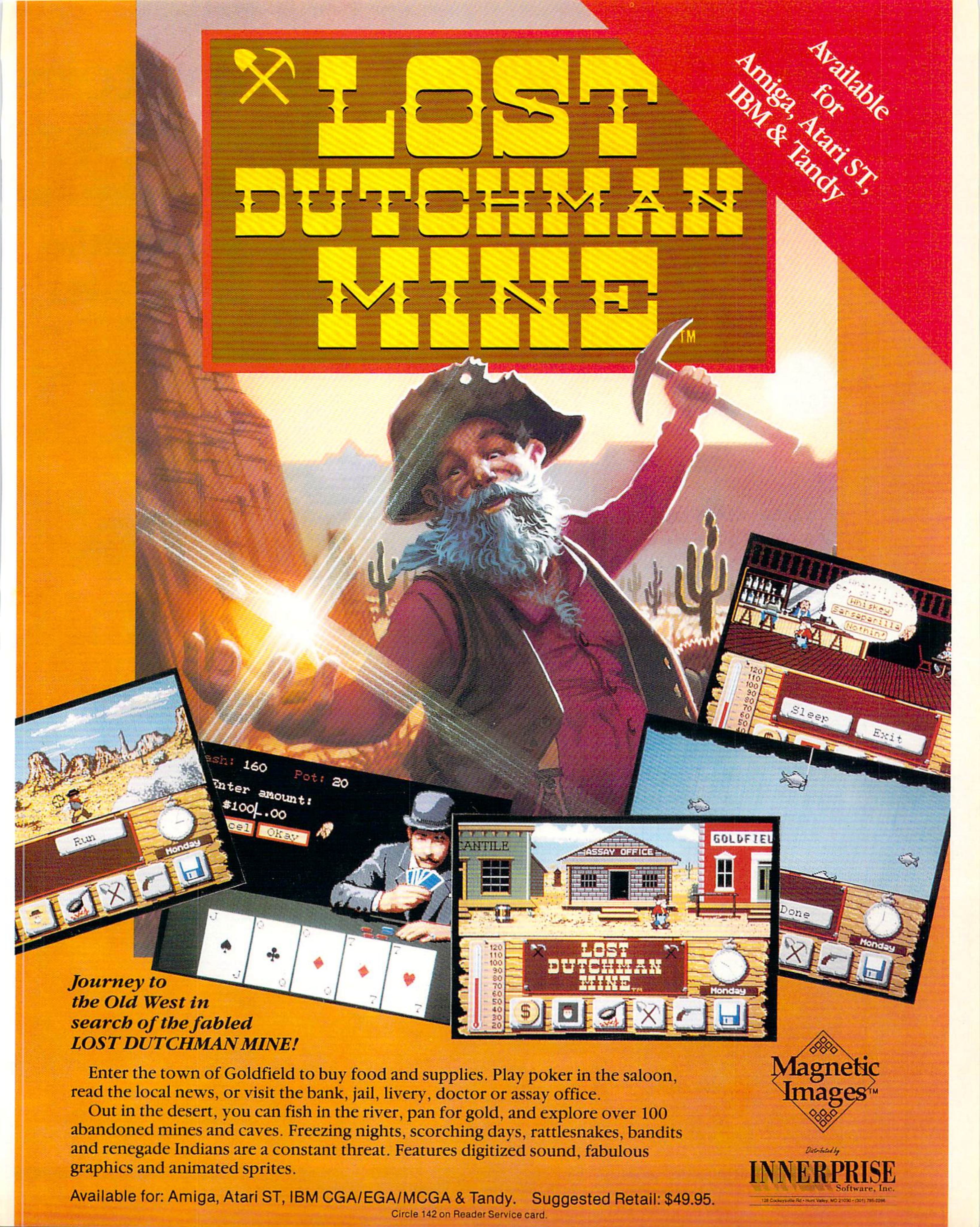
Progressive Peripherals & Software
464 Kalamath St.
Denver, CO 80204
303/825-4144

Skyles Electric Works
231 S. Whisman, Suite E
Mountain View, CA 94041
415/965-1735

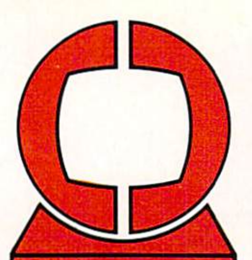
Spirit Technology Corp.
220 West 2950 South
Salt Lake City, UT 84115
801/485-4233
800/433-7572

Supra Corporation
1133 Commercial Way
Albany, OR 97321
503/967-9067

Xetec Inc.
2804 Arnold Rd.
Salina, KS 67401
913/827-0685



LOST DUTCHMAN MINE™
Available for Amiga, Atari ST, IBM & Tandy
Whiskey
Sarsaparilla
Nothin'
Sleep
Exit
ash: 160
Pot: 20
Enter amount:
$100.00
Okay
Run
Monday
ASSAY OFFICE
GOLDFIEL
Done
LOST DUTCHMAN MINE
Monday
Journey to the Old West in search of the fabled LOST DUTCHMAN MINE!
Enter the town of Goldfield to buy food and supplies. Play poker in the saloon, read the local news, or visit the bank, jail, livery, doctor or assay office.
Out in the desert, you can fish in the river, pan for gold, and explore over 100 abandoned mines and caves. Freezing nights, scorching days, rattlesnakes, bandits and renegade Indians are a constant threat. Features digitized sound, fabulous graphics and animated sprites.
Available for: Amiga, Atari ST, IBM CGA/EGA/MCGA & Tandy. Suggested Retail: $49.95.
Circle 142 on Reader Service card.
Magnetic Images™
Distributed by
INNERPRISE Software, Inc.



Creative Computers

ORDERS ONLY: 800-872-8882 U.S. ORDERS ONLY (including CA) **213-542-2292** CUSTOMER SERVICE OR ORDER STATUS

VISA, MasterCard, American Express, Discover, International Phone and Mail Orders, Educational, Corporate and Aerospace Purchase Orders Accepted.
4453 Redondo Beach Blvd., Lawndale, CA 90260 Mon.-Sat. 8 a.m.-6 p.m. PST FAX: 213-214-0932

HARDWARE

68020-12 CPU/PROCESS	170.00
68030-16/20 CPU/PROC	570.00
68881-16 MATH COPROC	200.00
68881-20 MATH COPROC	300.00
68882-20 MATH COPROC	500.00
68882-25 MATH COPROC	620.00
AMAS MIDI SAMPLER	109.95
AMI-X10	46.95
• AMI-X10 W/HRDW 500/20	114.95
• AMI-X10 W/HRDWR A1000	114.95
AMIGA MUSIC PACK	0.00
AMIGEN GENLOCK	149.00
AMPLIFIED SPEAKERS	84.95
APRODRAW 12X12	464.95
APRODRAW 12X12 W/CUR	499.95
APRODRAW 9X6	379.95
CA-880 FLOPPY DRIVE	199.00
CMI MIDI 1 (EXT)	52.76
COLOR SPLITTER	89.95
CSA DRAGSTRIP	649.00
CSA FASTTRACK ACCEL	799.95
CSI 2200	149.00
CSI 3100 SILENT DRIVE	159.00
CSI 3200 SILENT DRIVE	169.00
• CUTTING EDGE MAC DRIV	209.95
DELUXE MIDI INTF. 500	59.95
DELUXE MIDI INTF 1000	59.95
DESKJET 128K RAM CRTG	117.95
DIGI VIEW FOR A1000	143.95
DIGI VIEW GOLD	149.00
• DUAL SERIAL BOARD	199.95
EASYL 1000 TABLET	369.00
EASYL 2000 TABLET	369.00
EASYL 500 TABLET	369.00
ECE MIDI 1000	48.95
ECE MIDI 500/2000	48.95
ESCORT 3.5HD CASE	123.50
ESCORT 48MB HDD A1000	859.00
ESCORT 48MB HDD A500	859.00
FLASH CARD	199.95
FRAMEGRABBER	539.00
FUTURE SOUND 500	93.95
FUTURE SOUND A1000	CALL
GEN-ONE GENLOCK	739.00
GOMF! 3.0 W/BUTTON	48.95
GVP RAM/ROM MOD.W/2MB	539.00
GVP RAM/ROM MODULE	69.95
HURRICANE 1000 ACCEL	350.00
HURRICANE 1000 MEM BD	470.00
HURRICANE 2000 ACCEL	470.00
HURRICANE 2000 MEM BD	470.00
HURRICANE 68030 BRD	230.00
IMPRINT LIQUID LIGHT	399.00
INTRUDER ALERT	124.00
LENS 16MM NO IRIS	21.85
LENS 16MM W/IRIS	66.25
LIGHT PEN	97.95
LIVE! 1000	270.00
LIVE! 500	289.00
MAGNI 4004 GENLOCK	1595.00
MAGNI 4010 CONTROLLER	299.99
MICRO MEGS	149.95
MICROB 8UP M.BRD SIMM	174.95
MICROB HARDFRAME SCSI	239.95
MICROB. 8UP DIPP 2MB	649.00
MICROB. 8UP DIPP W/0K	174.95
MICROLINE MW-738	
A500 POWER SUPPLY	84.95
MIDGET RACER	349.95
MIDI GOLD 500	64.95
MIDI GOLD INSIDER	68.47
MIDI INTERFACE CABLE	38.00
MINIMEGS A1000 1MB	449.00
MINIMEGS A1000 2MB	749.00
MINIMEGS A1000 512K	299.00
MINIMEGS A500 1MB	449.00
MINIMEGS A500 2MB	749.00
MINIMEGS A500 512K	299.00
• NEC LC SILENT WRITTER	3495.00
NERIKI GENLOCK	1975.00
OKIMATE 20 W/PLUG'PRT	249.00
OKIMATE PLUG N PRINT	79.95
OMEGA SAMPLER A1000	79.95
PANASONIC WV1410	225.00
PANASONIC WV1500	320.00
PEOPLE METER	39.95
PERFECT SOUND 500/200	67.95
PERFECT SOUND A1000	67.95
PERFECT VISION - ALL	199.95
PRO RAM A2000 2/8 MEG	699.00
PRO SOUND DESIGNER	119.95
PROCESSOR ACCEL	159.00
PROGEN GENLOCK	399.00
QUANTUM 40MB HARD DRV	599.00
QUANTUM 80MB HARD DRV	995.00
SOUNDSCAPE MIDI PACK	279.95
SPIRIT DELUXE MIDI	214.95
STAR NX1000 PRINTER	195.00
STAR NX1000 RAINBOW	270.00
STEREO SOUND SAMPLER	87.95
SUPERGEN GENLOCK	699.00
SUPRA 2400 BAUD MODEM	149.00
• SUPRA 2400 INT. MODEM	159.95
TINY TIGER 30MG HRDRV	629.00
TINY TIGER 40MG HRDRV	799.00
TINY TIGER 80MG HRDRV	1129.00
TOOLBOX A1000 ECE2120	230.00
TRUMP CARD SCSI A2000	170.00
TWIN DRIVES	279.00
UNIDRIVE	169.00

Boing! Mouse

Professional Optical 3-button mouse for your Amiga.

- Optical technology eliminates friction and momentum coefficients for super-precise handling.
- No moving parts for increased reliability.
- Middle button makes it the only mouse compatible with A2024 software and X Windows.
- Compatible with ALL Amiga computers.

SPECIAL PRICE! LIMITED TIME ONLY: $99.95

VAULT 30MB HARD DRIVE	699.00
VAULT 40MB HARD DRIVE	799.00
VAULT 65MB HARD DRIVE	939.00
VI 2000 RF VIDEO INTF	79.95
VI 2000 VIDEO INTER.	69.95
VI 500 RF VIDEO INTRF	69.95
VI 500 VIDEO INTERF.	59.95
X-SPECS 3D	99.95
XEROX 4020 PRINTER	1140.00
XEROX 4020 STARTER KT	156.00
• ZOOM 2400 BAUD MODEM	139.95

GRAPHICS

3 DEMON	71.95
3D GRAPHICS	36.13
3D OPTIONS	32.46
ACAD TRANSLATOR	139.95
AEGIS ANIMATOR	39.95
AEGIS DRAW 1.4	52.95
AEGIS DRAW 2000	181.95
ALOHA FONTS 1	12.95
ALOHA FONTS 2	12.95
ALOHA FONTS 3	12.95
ANALYTIC ART	37.48
ANIM. LIB. CHRISTMAS	19.95
ANIM. LIB. DRAGONS	19.95
ANIMAGIC	51.95
ANIMATION FLIPPER	38.95
ANIMATION ROTOSCOPE	51.95
ANIMATORS APPRENTICE	184.95
ANIMATORS EDITOR	38.95
ANIMATORS EFFECTS	32.46
ANIMATORS MULTIPLANE	58.46
ANIMATORS STAND	32.46
ANIMOTION	62.95
ART COMPANION	19.95
ART GALLERY 1 & 2	25.95
ART GALLERY FANTASY	23.36
ASHAS CALLIGRA FONTS	58.95
• BOARD MASTER	64.95
• BROADCAST TITLER	194.95
BRUSH WORKS	20.95
BRUSH WORKS 2	22.71
BUTCHER 2.0	23.13
C LIGHT	38.95
CAD PARTS 4 INTROCAD	16.50
CALIGARI	1495.00
• CALIGARI CONSUMER	164.95
CALLIGRAPHER	84.95
CHROMA PAINT	51.95
CITYDESK COMPANION	19.95
CLIP ART #1	12.95
CLIP ART #2	12.95
CLIP ART #3	12.95
CLIP ART #4	12.95
CLIP ART #5	12.95
CLIP ART #6	12.95
CLIP ART #7	12.95
CLIP ART #8	12.95
COMIC SETTER	64.96
COMICSETTER FUNNYDATA	22.95
COMICSETTER HERO DATA	22.95
COMICSETTER SF DATA	22.95
DELUXE ART PARTS #1	21.95
DELUXE ART PARTS #2	21.95
DELUXE MAPS	16.95
DELUXE PAINT ART/UTIL	21.95
DELUXE PHOTO LAB	99.95
DELUXE PRINT ART #1	23.95
DELUXE PRODUCTIONS	139.95
DEMONSTRATOR	21.95
DESIGN DISKS FOR TURBO SILVER, SCULPT ANIMATE OR VIDEOSCAPE (EA.)	22.74
DESIGN 3D	64.95
DESKTOP ARTIST	18.95
DIGI PAINT 3.0	65.00
DIGI VIEW UPGRADE	13.95
• DIGIWORKS 3D	84.95
DIRECTOR, THE	45.95
DIRECTORS TOOLKIT	24.95
DLX HLP W/DIGIPAINT	21.84
DLX HLP W/DPAINT II	21.84
DLX HLP W/PHOTON PNT	21.95
DLX HLP W/CALIGRAPHER	22.71
DOUGS COLOR COMMANDER	19.46
DOUGS MATH AQUAR. LIB.	9.95
EXPRESS PAINT 3.0	90.95
FANCY 3D FONTS	46.95
FANCY 3D FONTS SILVER	51.95
FANTAVISION	42.95
FIF MODULE	14.95
FONT WORKS	25.95
FONTS AND BORDERS	22.95
FORMS IN FLIGHT II	79.95
GALLERY 3-D	51.95
• GOLD DISK FONT SET #1	21.85
GRABBIT	20.95
• GRAPHICS STARTER KIT	64.95
HAMMANDEL	25.95
HOME BUILDERS CAD	129.95
• HOMETOWN USA	25.95
ICON PAINT	58.95
INTERCHANGE	32.46
INTERCHANGE CONVER	16.95
INTERCHANGE OBJ #1	16.95
INTERCHANGE TSLV MODL	12.96
INTERFONTS	75.36
INTROCAD	49.95
INVISION	99.95
JET SET FONT SET	32.50
KARA FONTS HEADLINES	51.95
KARA FONTS HEADLINES2	47.95
KARA FONTS SUBHEADS	47.95
LASER UP! FONTS VOL 1	31.95
LIGHTS CAMERA ACTION	59.95
LION'S CALLIGRA FONTS	58.95
• MASTERFONTS 3D VOL 1	24.95
MASTERPIECE FONTS	167.95
MEDIALINE BACKGRND 1	25.95
MEDIALINE CLIP ART	22.95
MEDIALINE FONTS	22.95
MODELER 3D	65.00
MOVIE SETTER	64.95
NEWSLETTER FONTS COLR	29.95
PAGE FLIPPER	31.23
PAGE FLIPPER PLUS F/X	103.95
PAGE RENDER 3D	94.95
• PAGE STREAM FONTS 1-5 & A-C (ea.)	25.95
PERFORMER (ELAN)	38.95
PHOTON CELL ANIMATOR	99.95
PHOTON PAINT	64.96
PHOTON PAINT 2.0	99.95
PHOTON PAINT EXP. DSK	19.95
PHOTON TRANSPORTER	194.95
PIXMATE	45.95
PRINT MASTER ART #1	18.73
PRINT MASTER ART #2	18.73
PRO FONTS 1	22.95
PRO FONTS 2	24.95
• PRO VIDEO GOLD	194.95
PRO VIDEO PLUS	184.95
PROFESSIONAL DRAW	129.95
RESEP (ASDG)	54.95
• SCULPT 3DXL	99.95
• SPRITZ	49.95
• STRUCTURED CLIP ART	38.95
STUDIO FONTS V1	29.95
TALKING ANIMATOR, THE	39.00
TATE FONTS	45.95
TERRAIN FOR TURBOSILV	19.95
TURBO SILVER 3.0	129.95
TV SHOW	64.95
TV TEXT	62.32

Next day service with— FEDERAL EXPRESS

- Order by 12 noon (P.S.T.) and receive in-stock items the following day.*
- Rates start at $5.00.
- Please call for exact rates and details.

NOT APPLICABLE TO ALL ITEMS.

VIDEO EFFECTS 3D	129.96
VIDEO VISIONS 1	12.95
VIDEO VISIONS 2	12.95
VIDEOSCAPE 3D	124.95
VIDEOTITLER	99.95
• XCAD	389.95
XCAD DESIGNER	94.95
ZOETROPE	89.95
ZUMA FONTS 1-4 PACK	68.95
ZUMA FONTS VOL. 1-4 (ea.)	22.95

MUSIC

ADRUM	51.98
AUDIOMASTER	37.48
AUDIOMASTER II	64.95
C-ZAR	126.95
DELUXE MUSIC 2.0	69.95
DR. T'S 4-OP ED/LIB	92.95
DR. T'S BACH SONGBOOK	17.95
DR. T'S CASIO V21	92.95

The LARGEST International Dealer of AMIGA Products in the WORLD!

OVER 1300 ITEMS

The best NEW products • The LOWEST PRICES

NEW PRODUCTS ARRIVE DAILY. CALL FOR UNLISTED ITEMS.

DR. T'S COPYIST	155.38
DR. T'S COPYIST II	159.95
DR. T'S CZ CARTRIDGE	61.95
DR. T'S CZ RIDER	92.95
DR. T'S D-110 ED/LIB	92.95
DR. T'S D-50 ED/LIB	92.95
DR. T'S DR. DRUMS	17.95
DR. T'S DR. KEYS	17.95
DR. T'S DX7 ED/LIB	92.95
DR. T'S ESQ-APADE 1	92.95
DR. T'S KAWAI K-1	92.97
DR. T'S KAWAI K-5	92.95
DR. T'S KCS	154.95
DR. T'S KCS LEVEL II	219.95
DR. T'S LEXICON	92.95
DR. T'S MATRIX-6	92.95
DR. T'S MIDI REC. STD	43.50
DR. T'S MT-32 ED/LIB	92.95
DRUM STUDIO	32.47
DYNAMIC DRUMS	49.95
DYNAMIC STUDIO	139.00
HIT DISK VOL 1	32.46
HOT & COOL JAZZ	21.95
INSTANT MUSIC 1.2	33.00
IT'S ONLY ROCK & ROLL	21.95
LIFE CYCLES AMIGA	19.46
• M INTELLIGENT MUSIC	143.46
MIDI MAGIC	97.95
MIDIVU	29.95
MUSIC MOUSE	51.95
PRO MIDI STUDIO	130.95
SAMPLEWARE - DIGITAL	16.95
SAMPLEWARE - GRAB BAG	16.95
SAMPLEWARE - ORCHESTR	16.95
SAMPLEWARE - ROCK	16.95
SONIX	49.95
SOUND OASIS	64.95
SOUNDLAB	209.95
SOUNDQUEST EDITORS AND LIBRARIANS (call for prices and availability)	CALL
SOUNDSCAPE PATTERN SPLT	35.95
SOUNDSCAPE UTIL. I	35.95
SOUNDSCAPE UTIL. II	42.95
STUDIO MAGIC	64.95
SYNTHIA	59.95
ZOUND SOUNDS VOL 1	21.95

EDUCATIONAL

A B ZOO	25.99
ADVENTURES OF SINBAD	32.46
AESOP'S FABLES	19.95
ALGEBRA I	36.95
ALGEBRA II	32.46
ALL ABOUT AMERICA	38.95
ANIMAL KINGDOM	32.46
BASIC GRAMMER SERIES	19.46
BOOMERAID	32.46
CALCULUS	36.95
CAPITALIZATION SERIES	19.46
CHICKEN LITTLE	19.95
CROSSWORD CREATOR	34.95
DECIMAL DUNGEON	32.46
DES CARTES	22.95
DESIGNASAURUS	32.46
• DINOSAUR DISCOVERY KT	27.95
• DINOSAURS ARE FOREVER	25.95
• DISCOVER ALPHABET	14.95
• DISCOVER CHEMISTRY	14.95
• DISCOVER HISTORY/GEO	14.95
• DISCOVER MATH	14.95
DISCOVER NUMBERS	14.95
DISCOVERY DATA DISKS (EA.)	12.97
DISCOVERY W/MATH	25.00
DISCOVERY W/SPELLING	25.00
DISCOVERY W/TRIVIA	25.00
DISCRETE MATHEMATICS	36.95
EXPLORER, THE	36.95
FIRST LETTERS & WORDS	33.00
FIRST SHAPES	33.00
FRACTION ACTION	32.46
GALILEO 2.0	45.46
GEOMETRIC LIBRARY	11.95
GRADE MANAGER	58.95
GREAT STATES II	25.95
INTELLITYPE	35.95
KIDTALK	27.95
KINDERAMA	32.46
LEARNING CURVE	51.95
LEARNING THE ALPHABET	19.46
LINKWORD DUTCH	20.55
LINKWORD FRENCH	20.55
LINKWORD GERMAN	20.55
LINKWORD GREEK	20.55
LINKWORD ITALIAN	20.55
LINKWORD PORTUGUESE	20.55
LINKWORD RUSSIAN	20.55
LINKWORD SPANISH	20.55
LOTTO PROGRAM	19.95
MAD LIBS	12.48
MAGICAL MYTHS	32.46
MAGICIANS DUNGEON	0.00
MASTERING CLI	25.95
MATCH IT	25.95
MATH MAGICIAN	27.49
MATH TALK	31.95
MATH TALK FRACTIONS	26.95
MATH WIZARD	32.46
MATH-AMATION	64.95
MAVIS BEACON TYPING	30.89
MOTHER GOOSE	19.95
MUSIC STUDENT	37.95
MY PAINT	32.47
PERFECT SCORE	54.95
PHOTOSYSNTHESIS	97.95
PINBALL I.Q	19.46
PLANET PROBE	19.95
PRE CALCULUS	36.95
PROBABILITY THEORY	36.95
PUNCTUATION SERIES	19.46
PUZZLE STORYBOOK	27.95
QUIZ MASTER	49.95

AMAX MAC EMULATOR FOR THE AMIGA!

AMAX Emulator	$139
Mac 128K EPROMS	$149
AMIG-a-TOSH 880K floppy disk drive	$179

COMPLETE PACKAGE! All the above only ... $429

QUIZAM	23.10
REACH FOR THE STARS	27.95
READ & RYME	31.95
READ-A-RAMA	32.46
ROCK CHALLENGE	25.95
RR AESOP'S FABLES	19.95
RR LITTLE RED HEN	19.95
RR THREE LITTLE BEARS	19.95
RR THREE LITTLE PIGS	19.95
RR UGLY DUCKLING	19.45
SMOOTH TALKER	33.95
SOCIAL STUDIES VOCAB.	19.46
SPACE MATH	29.95
SPELLBOUND	25.95
SPELLER BEE	33.00
SPELLING IMPROVEMENT	25.95
TALES FROM ARABIAN NT	32.46
TALKING COLORING BOOK	18.95
TRANSCONT. RAILROAD	25.95

NEW FROM CENTAUR: THE SILENT DRIVE $169

WITH B.A.D ACCELERATOR SOFTWARE (up-to-500% SPEED INCREASE)!

FEATURES: • CSI 3200 • Clickless • Small compact design • Metal case • Compatible with all Amiga computers • Low power consumption • Hinged dust cover • Drive disable switch • 1-year warranty.

ALSO AVAILABLE:
CSI 2200 internal drive for Amiga 2000—100% compatible with same mechanism as Commodore 2010 .... $149.00

TRIGONOMETRY	36.95
TRUEBASIC ARITHMETIC	45.96
TRUEBASIC TRUE STATS	32.46
TYPING TUTOR WRD INV	22.95
UNCLE D CONSNDTRATION	25.97
VOCAB. IMPROV. TUTOR	19.46
• WHERE IN THE WORLD	31.95
WORD MASTER	32.46

BUSINESS/PRODUCTIVITY

ACCOUNTANT, THE	186.95
ANALYZE 2.0	93.73
ATALK III	64.97
AWARD MAKER - EDUC	19.95
AWARD MAKER - SPORTS	19.95
AWARD MAKER PLUS	31.16
BECKER TEXT	99.95
BEST BUSINESS MGMT	354.95
BLACK BOOK	23.50
• BUDGETEER	32.46
BUMPER STICKER MAKER	37.95
BUTTON & BADGE MAKER	38.95
CELEBRITY COOKBOOK	22.95
COOKBOOK - DESSERT	9.95
COOKBOOK - VARIETY	9.95
DATA RETRIEVE	49.95
DATA RETRIEVE PROFESS	211.95
DB-MAN INTERPETER 3.0	129.95
DESIGNER DBASE BUSI	45.95
DESIGNER DBASE HOME 1	25.95
DESKTOP BUDGET	45.95
DLX HLP W/PAGESETTER	22.95
• EASY LEDGERS	189.95
• EXCELLENCE (1 MB VER)	159.00
FAMILY TREE	32.46
FLEET CHECK	25.96
FLOW	62.32
• FORMATION	45.95
GOLD SPELL II	29.95
IMPACT	62.46
INVESTOR'S ADVANTAGE	64.95
KINDWORDS	64.95
LEXCHECK	26.85
LOTTO PROB. GENERATOR	19.48
MAXIPLAN 500	93.95
MAXIPLAN PLUS	124.95
MICROFICHE FILER	69.95
MICROFICHE FILER PLUS	116.95
MICROLAWYER	37.95
MONEY MENTOR	64.95
• NOREEN GENEALOGICAL	32.40
NUTRIFAX	37.95
ORGANIZE	62.32
PAGE STREAM	129.95
PHASAR	62.48
• PRO. PAGE TEMPLATES	38.95
• PROFESSIONAL PAGE V 1.2	229.00
PROJECT MASTER	129.95
PROSCRIPT	32.95
PROWRITE 2.0	78.10
PUBLISHERS CHOICE	129.95
RECIPE FAX	24.95
• SCRIBBLE PLATINUM	97.95
SECURITIES ANALYST	49.95
SHAKESPEARE	146.95
SOFTWOOD FILE SG	78.21
SUPERBASE	93.73
SUPERBASE PERS. II	94.46
SUPERBASE PROF. III	209.95
SUPERPLAN	99.95
TAX BREAK	51.95
• THINKER	38.95
• TRANSCRIPT	45.95
WHO WHAT WHERE WHEN	64.95
WORD PERFECT	179.00
WORD PERFECT LIBRARY	84.95
WORKS PALTINUM	191.95
ZING! SPELL	57.95

PROGRAMMING/UTILITIES

64 EMULATOR 2	49.95
A-TALK PLUS	51.95
AC BASIC	134.06
AC FORTRAN	199.00
• AM KIT	25.95
• AMI ALIGNMENT SYSTEM	32.46
• AMIGA DOS TOOLBOX	38.95
• ANTI-VIRUS	25.96
AREXX	32.95
ASSEMPRO	71.95
ATREDES (BBS)	97.46
AZTEC 68/AM-DEVELOPER	194.95
AZTEC C PROFESSIONAL	129.95
• B.A.D DISK OPTIMIZER	32.46
BBS PC	62.32
BENCHMARK C LIBRARY	64.95
BENCHMARK IFF LIBRARY	64.95
BENCHMARK MODULA-2	129.95
BENCHMARK SIMPLE LIBR	64.95
CAPE 68K ASSEM 2.0	58.47
CB TREE PLUS	64.95
CLI MATE	24.95
CUSTOMS SCREENS	43.73
CYGNUS ED PROF	64.95
DEV DISK - ASSORTED	7.95
DEVELOPERS TOOLKIT	36.95
DEVPAC AMIGA ASSEMBLR	129.95
DIGA - TELECOMM	49.98
DISK MAGIC	32.46
DISK MECHANIC, THE	58.50
DISK TO DISK	34.95
DISK WICK	32.46
• DISKMASTER	37.95
DOS LAB	16.25
DOS TO DOS	37.95
DOUG'S MATH AQUARIUM	51.95
ENCORE	45.95
EXPRESS COPY	29.95
EXTEND	25.95
FACC II	21.95
FINE PRINT	41.95
GFA BASIC 3.0	90.95
GIZMOZ	45.95
GOMF 3.0	27.95
HISOFT BASIC PROFESSN	103.95
INOVATOOLS I	58.47
JFORTH PROF	129.95
KEY TO "C"	22.95
LASER UP! PLOT 1.2	39.95
LASER UP! PRINT 1.2	71.95
LASER UP! UTIL. VOL 1	31.95
LATTICE "C" 5.0 SYSTEM	199.00
LATTICE C++	299.95
LAZERSCRIPT	28.10
LINT	63.70
LOGIC WORKS ADVANDCED	189.95
MAGELLAN 2.0	119.00
MARAUDER II	27.47
METACOMCO ASSEMBLER	68.95
METACOMCO SHELL	39.95
METACOMCO TOOLKIT	34.95
METASCOPE DEBUGGER	59.95

4 MORE REASONS WHY YOU SHOULD SHOP AT — CREATIVE COMPUTERS

1. OUR NEW MINI-COMPUTER ASSURES YOU:
   - IMMEDIATE CUSTOMER SERVICE AND ORDER STATUS
   - ADVANCED INVENTORY CONTROL AND ORDERING MINIMIZING BACK ORDERS AND DELAYS.
2. NOW WITH EVEN LARGER FACILITIES AND TWICE THE STAFF.
3. THE BEST AMIGA SERVICE CENTER ANYWHERE!
4. CALIFORNIA AND U.S. TOLL-FREE ORDERING!

MULTI-FORTH	59.95
MULTI-PREFS	19.45
MURAL PRINTER	29.95
NAG PLUS 3.0	49.95
• ONLINE PLATINUM	64.95
OTG DSM -DISASSEMBLER	43.95
PCLO	199.95
PCLO+ PRNTD CURCUIT	399.95
POWER WINDOWS 2.5	58.47
PRINTMASTER	31.23
• PRO BOARD	389.95
PRO NET	389.95
PROJECT D	31.95
• QUARTERBACK	45.95
QUICK MERGE	37.95
RAW COPY 1.3	38.95
SCHEME	199.95
SOURCE LEVEL DEBUGGER	49.96
SUPERBACK HD UTILITY	51.95
SYSTEMS MONITOR	28.95
T SHELL	28.95
• TOOL CADDY	32.46
TRUE BASIC DEV.TOOLS	49.95
TURBO PRINT	32.95
TXED PLUS	51.95
ULTRA DOS	37.95
VIP VIRUS	32.46
W SHELL	31.95
WBEXTRAS	21.95
WINDOW PRINT II	22.95
• X-COPY	25.95
ZING KEYS	31.95

GAMES

4x4 OFF ROAD RACING	32.46
4TH & INCHES CONSTRUC	9.95
4TH AND INCHES	29.24
AAARGH!	23.95
ACTION FIGHTER	25.95
• ACTION SERVICE	25.95

The "We Want Everyone's Business" Blow-Out SALE!!!

Music-X ... $149.95



Deluxe Paint II (reg. $99.95)	49.95
Using Deluxe Paint II (book)	19.95
Deluxe Video II	49.95
Deluxe Paint II & Deluxe Video II (combo)	79.95
Acquisition Database (reg. $395)	49.95
Dark Castle	9.95
Lurking Horror	9.95
Softwood File II	19.95
Ports of Call	19.95
NTF Fonts (Roman, Sans Serif or Comix)	24.95
Amiga Textcraft Plus	29.95
Graphics Studio	19.95
Forms In Flight II (3D animation, very powerful, incredible value—reg. $179)	49.95
Gizmos 2.0	9.95
Activision Championship Football	9.95
GO-64 (C-64 emul.)	9.95
MaxiPlan Plus	89.95
Money Mentor	19.95
Evil Garden	14.95
Joe Blade	14.95
Mind Walker	9.95
Cubemaster by ASDG, Slaygon, Deep Space, Arena, War Zone, Space Station or Fire Blaster (ea.)	5.00

These items are available for the indicated special prices only if ordered with any other regular item. Minimum order $20.00. **WHILE SUPPLY LASTS!**

[NOTE: • = NEW ITEM.] WE CAN BEAT ANY ADVERTISED PRICE! BUT WE SELDOM HAVE TO—OUR PRICES ARE THE LOWEST! (IF YOU SEE A LOWER PRICE ON AN ITEM, GIVE US A CALL.)

Circle 199 on Reader Service card.

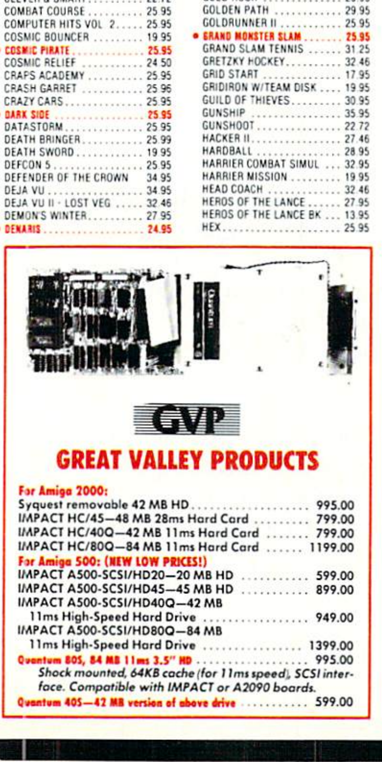
• AFTERBURNER	32.46
AIRBALL	25.95
ALIEN SYNDROME	32.46
ALTERNATE REALITY	27.95
AMIGA KARATE	24.95
ANDROMEDA MISSION	25.95
ANNALS OF ROME	24.95
ARAZOK'S TOMB	31.25
ARCADE ACTION PACK	34.95
ARCHON	13.97
ARKANOID	19.95
ART OF CHESS, THE	22.95
• ARTHUR	32.46
AUNT-ARTIC	25.95
AUTODUEL	27.00
BAAL	22.95
BAD CAT	30.25
BALANCE OF POWER	19.90
BALLIHO	27.47
BALLISTYX	22.95
BARBARIAN	25.95
BARD'S TALE	35.95
BARD'S TALE 2 HINT BK	10.50
BARD'S TALE HINT DISK	13.95
BARD'S TALE II	41.95
• BATMAN	29.95
BATTLE CHESS	32.46
BATTLE HAWKS	38.95
BATTLE SHIP	19.46
BATTLETECH	32.46
BETTER DEAD T/ALIEN	21.95
BEYOND ZORK	33.76
BIONIC COMMANDO	25.97
BLACK CAULDRON	28.95
BLACK JACK ACADEMY	29.95
BLACK LAMP	22.00
BLACK SHADOW	22.95
BLITZKRIEG (1 MEG VR)	38.95
BLITZKRIEG 512 K	34.41
BLOCKBUSTER	32.46
BLOOD MONEY	25.95
BOBO	23.36
BOMB BUSTER	21.95
BREACH	25.95
BREACH SCENARIO DISK	16.95
BRIDGE 5.0	24.10
BUBBLE BOBBLE	22.95
BUBBLE GHOST	22.71
• BUTCHER HILL	25.95
CALIFORNIA CHALLENGE	14.95
CAPONE	25.95
CAPTAIN BLOOD	32.46
CAPTAIN FIZZ	19.95

CREATIVE COMPUTERS RECOMMENDS

Danger Freak	19.95
Pac-Land	19.95
My Paint Data Disk	19.95
Sonix SoundTrax	14.95
Emmanuelle	25.95
Kingdoms of England	24.95
Calif. Games	29.95
Grand Prix Circuit	29.95
I Ludicrus	19.95
Prospector	29.95
Motor Massacre	24.95
Lords of the Rising Sun	29.95
Prof. Techniques for DPaint III (VHS Tape)	24.95

Step-by-step guide to DPaint II features including cel animation, 3D perspectives, etc.

CARRIER COMMAND	30.95
CASINO FEVER	25.95
CENTERFOLD SQUARES	19.95
CHAMPIONSHIP BASEBALL	27.46
CHARON 5	25.96
CHESSMASTER 2000	32.46
CHRONO QUEST	33.95
CLEVER & SMART	22.72
COMBAT COURSE	25.95
COMPUTER HITS VOL 2	25.95
COSMIC BOUNCER	19.95
• COSMIC PIRATE	25.95
COSMIC RELIEF	24.50
CRAPS ACADEMY	25.95
CRASH GARRET	25.96
CRAZY CARS	25.95
• DARK SIDE	25.95
DATASTORM	25.95
DEATH BRINGER	25.99
DEATH SWORD	19.95
DEFCON 5	25.95
DEFENDER OF THE CROWN	34.95
DEJA VU	34.95
DEJA VU II - LOST VEG	32.46
DEMON'S WINTER	27.95
• DENARIS	24.95



GREAT VALLEY PRODUCTS

For Amiga 2000:

Syquest removable 42 MB HD	995.00
IMPACT HC/45—48 MB 28ms Hard Card	799.00
IMPACT HC/40Q—42 MB 11ms Hard Card	799.00
IMPACT HC/80Q—84 MB 11ms Hard Card	1199.00

For Amiga 500: (NEW LOW PRICES!)

IMPACT A500-SCSI/HD20—20 MB HD	599.00
IMPACT A500-SCSI/HD45—45 MB HD	899.00
IMPACT A500-SCSI/HD40Q—42 MB 11ms High-Speed Hard Drive	949.00
IMPACT A500-SCSI/HD80Q—84 MB 11ms High-Speed Hard Drive	1399.00
Quantum 80S, 84 MB 11ms 3.5" HD	995.00

Shock mounted, 64KB cache (for 11ms speed), SCSI interface. Compatible with IMPACT or A2090 boards.

Quantum 40S—42 MB version of above drive	599.00

BYTE BY BYTE

DISTRIBUTED BY CENTAUR SOFTWARE

SCULPT 3DXL $99.95
Create and render ray-trace objects with the speed and power of 4D.

SCULPT ANIMATE 4D JR $89.95
Create, render and animate solid objects with the same easy-to-use interface as 4D (no ray-tracing).

SCULPT ANIMATE 4D $350
The most sophisticated and powerful 3D animation and ray-tracing software available on ANY PERSONAL COMPUTER! AND—IT'S ALSO THE EASIEST TO USE!

CREATIVE COMPUTERS' EXCLUSIVE UPGRADE POLICY: You can upgrade your 3DXL or 4D Jr. to 4D directly from Creative Computers by sending us your 3DXL master disk + $290 or 4D Jr. master disk + $300.

DESTROYER	25.95
DETANATOR	25.97
DISTANT ARMIES	29.95
DOMINOES	16.95
DOUBLE DRAGON	27.95
DRAGON'S LAIR	38.95
DREAM ZONE	32.46
DUNGEON MASTER	32.46
DUNGEON MSTR HINTDISK	12.95
DUNGEON QUEST	32.46
EARL WEAVER BASEBALL	34.95
• EARL WEAVER COMM. DISK	14.95
EARL WEAVER STATS	12.95
EBON STAR	25.96
ELIMINATOR	25.95
• ELITE	32.46
EMETIC SKIMMER	25.96
EMPIRE	34.32
EMPIRE STRIKES BACK	30.25
ENIGMA DEVICE	25.95
ENLIGHTENMENT	15.95
EVIL GARDEN	25.95
EXTENSOR	25.95
• F40 PURSUIT	29.95
FAERYTALE ADVENTURE	31.95
FAERYTALE GUIDEBOOK	7.95
FALCON	32.46
• FAST BREAK	29.95
FERRARI FORMULA ONE	33.95
FINAL ASSAULT	32.46
FINAL MISSION	19.95
FIRE 'N FORGET	25.95
FIRE-BRIGADE	32.46
FIREPOWER	16.95
FIREZONE	23.95
FISH	29.95
FLIGHT SIMULATOR II	37.46
FOOTMAN	21.95
FOUNDATIONS WASTE	23.62
FRIGHT NIGHT	25.96
FROSTBYTE	19.46
FUED	12.95
GALACTIC CONQUERER	29.95
GALACTIC INVISION	0.00
GALAXY FIGHT	9.95
• GALDREGONS DOMAIN	25.95
GAMES WINTER EDITION	32.46
GANYMED	21.95
GAUNTLET II	33.95
GEE BEE AIR RALLY	25.95
GETTYSBURG TURN POINT	40.95
GIGANOID	0.00
GLOBAL COMMANDER	27.46
GOLD RUSH	25.95
GOLDEN PATH	29.95
GOLDRUNNER II	25.95
• GRAND MONSTER SLAM	25.95
GRAND SLAM TENNIS	31.25
GRETZKY HOCKEY	32.46
GRID START	17.95
GRIDIRON W/TEAM DISK	19.95
GUILD OF THIEVES	30.95
GUNSHIP	35.95
GUNSHOOT	22.72
HACKER II	27.46
HARDBALL	28.95
HARRIER COMBAT SIMUL	32.95
HARRIER MISSION	19.95
HEAD COACH	32.46
HEROS OF THE LANCE	27.95
HEROS OF THE LANCE BK	13.95
HEX	25.95

HIGHWAY HAWKS	22.95
HKM	22.95
HOLE IN ONE	25.99
HOLE IN ONE COURSE #3	11.95
HOLLYWOOD POKER	25.95
HOSTAGE	29.95
HUNT FOR RED OCTOBER	34.95
HYBRIS	25.99
HYPERDOME	22.95
IMPOSSIBLE MISSION II	32.46
INDIANNA JONES	25.95
INDOOR SPORTS	31.22
INSANITY FIGHT	25.96
INTERCEPTOR	37.95
INTERNATIONAL SOCCER	25.96
INTO THE EAGLE'S NEST	28.56
• JACK NICKLAUS GOLF	32.46
JET	37.46
• JINKS	19.95
JINXTER	25.95
JOE BLADE	19.95
JOKER POKER	32.46

MORE CREATIVE PROMOTIONS!

2 MB RAM CARD	**$499.00**

(For A2000—Expandable to 8 MB)

AMIGA LIVE! 2000	**$349.00**
FLICKER FIXER	**$479.00**

(Eliminate all flicker and scanline gaps 100% —optional multisync monitor—A2000 only)

PAWN, THE	16.21
PHANTASIE	27.47
PHANTASIE 3	24.95
PHANTASM	22.95
PINK PANTHER	28.56
PIONEER PLAGUE	25.96
PLATOON	29.21
PLUTOS	19.48
POKER SOLITAIRE	22.95
POLICE QUEST	32.46
• POPULOUS	34.95
POWERSTYX	22.95
PRESIDENT IS MISSING	25.95
PRIME TIME	25.95
PRISON	25.95
• PRO SOCCER	29.95
• PURPLE SATURN DAY	32.46
QUADRALIEN	19.95
QUESTRON II	32.46
QUINTETTES	29.95
• RAMBO III	25.95
RAMPAGE	25.95
REAL GHOSTBUSTERS, TH	32.46
REALM OF THE TROLLS	32.46
REALM OF THE WARLOCK	22.74
REBEL CHARGE AT CHK	39.95
REEL FISHIN'	30.88
RENEGADE	22.96
RETURN TO ATLANTIS	34.95
RETURN TO GENESIS	22.95
ROAD RAIDERS	25.96
ROADWAR 2000	27.47
ROADWAR EUROPA	29.95
ROBBEARY	16.21
ROCKET RANGER	32.46
ROCKFORD	23.95
ROMANTIC ENCOUNTER	25.95
• RUNNING MAN	32.46
SARGON III	35.95
• SAVAGE	32.46
SCARY MUTANT ALIENS	25.95
SCENERY DISK # 9	19.95

• TALESPIN	32.46
TANGLEWOOD	25.95
• TANK ATTACK	19.95
TARGIS	28.95
TECHNOCOP	32.46
• TEENAGE QUEEN	25.95
TELEEPIC	25.96
TELEGAMES	23.95
TELEWARS II	25.96
TERRORPODS	25.95
TEST DRIVE	34.95
TESTDRIVE II	29.95
TETRA QUEST	25.95
TETRIS	21.80
• THE DEEP	32.46
THEXDER	23.95
THREE STOOGES	35.95
THUNDER BLADE	32.46
THUNDERBOY	22.95
TIGER ROAD	25.95
TIME & MAGIC	26.95
TIME BANDITS	21.95
TITAN	29.95
TOTAL ECLIPSE	25.95
TOWER TOPPLER	32.46
TRACERS	22.95
TRANSPUTOR	22.95
TRIANGO	29.95
TRINITY	25.95
TRIPLEX	25.95
TRUMP CASTLE	25.95
ULTIMA III	28.95
ULTIMA IV	38.96
UMS CIVIL WAR DATADSK	12.95
UMS VIETNAM DATADSK	12.95
UNINVITED	34.95
UNIVERSAL MILITARY SM	32.46
VAMPIRE'S EMPIRE	29.95
VIDEO VEGAS	24.10
• VINDICATORS	25.95
VIRUS (GAME)	19.46
• VORTEX	25.95



NEW-PROFESSIONAL PAGE 1.3

A special limited time offer exclusively from CREATIVE COMPUTERS

For a limited time only, Pagestream owners can upgrade to the best in DTP software from Gold Disk at the very special price of $150!!!

Version 1.3 now offers outline font technology giving you results close to Postscript quality from almost *any* printer (in addition to standard Postscript)! The new AGFA/Compugraphic font technology gives you access to the world's largest supplier of fonts.

Call toll-free now to take advantage of this great offer for only $150. Do it now before stock runs out—this offer is too good to miss and CREATIVE COMPUTERS IS THE ONLY DEALER OFFERING IT!

JOURNEY	32.46
JUG	25.95
KAMPFGRUPPE	41.95
KARATE KID II	25.95
KARATE KING	15.95
KARTING GRAND PRIX	17.95
KENNEDY APPROACH	29.95
KIKSTART 2	14.95
KIKUGI	18.95
KING OF CHICAGO	34.95
KING'S QUEST I	32.95
KING'S QUEST II	32.95
KINGS QUEST 3 HNT DSK	12.95
KINGS QUEST III	32.95
KNIGHT ORC	30.95
• KRISTAL	32.46
LANCELOT	27.95
LAST DUEL	22.95
LAST INCA	25.95
LEADERBOARD COURSES 1	14.95
LEADERBOARD DUAL PACK	22.72
LEADERBOARD GOLF GAME	27.00
LEADERBOARD TORN. DSK	13.95
LEATHERNECK	25.95
LEISURE S.LRY HNT DSK	12.95
LEISURE SUIT LARRY	25.95
• LIGHT FORCE	25.95
LOMBARD RALLY	25.95
MAJOR MOTION	25.96
MAN HUNTER - NEW YORK	32.46
MANIAX	16.95
MARBLE MADNESS	33.00
MASTER NINJA	30.95
MEAN 18 COURSE DISK 2	14.95
MEAN 18 GOLF	28.95
MENACE	19.98
• MICKEY MOUSE	25.95
MIGHTY NERD	32.46
MIKE THE MAGIC DRAGON	16.95
MIND ROLL	19.95
MISSION CON-BAT	31.16
MISSION ELEVATOR	34.95
MOEBIUS	25.95
MOUSE QUEST	14.95
NINJA MISSION	30.95
OBLITERATOR	25.95
OFFSHORE WARRIOR	25.96
OGRE	32.46
ONE ON ONE	14.95
OPER. CLEAN STREETS	25.95
• OPERATION NEPTUNE	32.46
OPERATION WOLF	22.95
OUT RUN	32.46
P.O.W.	25.95
PACMAN'A	15.95
PALADIN	25.95
PALADIN - QUEST DSK 1	16.86

SCENERY DISK #11	18.72
SCENERY DISK #7	18.71
SCENERY DISK W.EUROPE	19.95
SCENERY DISK, EUROPE	17.95
SCENERY DISK, JAPAN	19.95
SCORPION	25.95
SCRABBLE	27.46
SDI - CINIMAWARE GAME	34.95
SECRETS DUNGEON MASTR	9.95
SEX VIXENS FROM SPACE	25.95
SHADOW GATE	31.95
SHANGHAI	27.46
SHERLOCK	27.00
SHOGUN	38.95
SILENT SERVICE	25.95
• SIMCITY	30.95
SINBAD & THE SWORD	29.95
SKY BLASTER	19.95
SKY CHASE	26.95
SKYFOX II	27.46
SLIP STREAM	16.95
SNAKE PIT	24.95
SOLITAIRE ROYAL	22.71
SORCERER LORD	23.95
SPACE CUTTER	19.95
SPACE HARRIER	32.46
SPACE QUEST	33.00
SPACE QUEST II	32.46
SPACE RACER	19.46
SPACE SCHOOL SIM	22.95
SPACESTATION OBLIVION	32.46
SPEEDBALL	25.95
SPIN WORLD	25.95
SPITTING IMAGE	25.95
STAR WARS	25.95
STARFLEET I	39.95
STARGLIDER	30.95
STARGLIDER II	29.95
STARGOOSE	25.95
STARRAY	19.95
STELLAR CONFLICT	28.95
STELLARX	25.95
STOCK MARKET-THE GAME	16.95
STREET CAT	16.95
STREETSPORTS BASKETBL	13.95
STRIP POKER DATA #4	12.95
STRIP POKER DATA #5	12.95
STRIP POKER II	25.95
SUB BATTLE	24.95
SUMMER CHALLENGE	19.95
SUPER 6	29.95
SUPER CARS	14.95
SUPER HANG-ON	32.44
• SUPERIOR GOLF KIT	9.95
• SUPERMAN	32.46
SUPERSTAR ICE HOCKEY	32.46
SWORDS OF SODAN	32.46

VYPER	21.95
• WANDERER	25.95
WAR IN MIDDLE EARTH	36.99
WARLOCK	22.71
WESTERN GAMES	31.95
WHO FRAMED ROGER RABB	29.97
WILLOW	25.95
WINTER CHALLENGE	19.95
WINTER GAME	27.46
WORLD CLASS GOLF	25.97
WORLD GAMES	27.46
• WORLD SNOOKER & OTHER	19.95
WORLD TOUR GOLF	27.45
• WRANGLER	19.95
ZAK MCKRACKEN	29.95
ZANY GOLF	27.95
ZERO GRAVITY	19.46
ZOOM	21.95
ZORK TRILOGY	47.95
ZORK ZERO	38.95
ZYNAPS	23.95

ACCESSORIES

ALLSOP DISKFILE/80	14.95
AMIGA ATHLETIC BAG	24.95
AMIGA BIC LIGHTER	1.95
• AMIGA BRASS KEY RING	3.95
AMIGA CORDUROY CAP	7.95
AMIGA GARMET BAG	34.95
AMIGA GOLF SHIRT	19.95
• AMIGA JACKET	39.50
AMIGA LOGO NOTE PAD!	4.99
• AMIGA MUG	5.78
AMIGA PEN & PENCIL	19.95
AMIGA PLASTIC VISOR	1.95
• AMIGA SWEATSHIRT	14.95
AMIGA T-SHIRT	7.95
AMIGA TERRY VISOR	5.50
AMIGA TIE PINS	4.95
• AMIGA TOWEL	15.95
AMIGA TWILL CAP	7.95
• CABLES (nearly all types available including custom cables)	CALL
CARRY BAG FOR A1000	59.95
CARRY BAG FOR A500	52.95
CARRY BAG FOR MONITOR	45.95
CLEANING KIT LARGE	14.95
CLEANING KIT SMALL	7.95
CLEANING KIT SUNCOM	6.95
CONTROL CENTRE A500	71.95
COPY/CAMERA STAND	64.95
CPS 500 POWER SUPLY	74.95
CURTIS DISK FILE 30	7.95
CURTIS DISK FILE 40	8.95
CURTIS DISK FILE 80	14.95
DESKJET BLK CARTRIDGE	15.95

DESKJET COURIER FONTS	62.95
DESKJET DUST COVER	29.95
DESKJET EPSON FX EMUL	62.95
DESKJET HELV 8 &10 PT	79.95
DESKJET HELV ASCII	104.95
DESKJET PRESTIGE ELT.	79.95
DESKJET STAND/ORGNZR	84.95

ASDG DUAL SERIAL BOARD $199

FEATURES: 2 high-speed RS232 serial ports for the Amiga 2000. IBM PC AT style (9-pin) connector for each port. Transfer from 50 to 76,000 BAUD. Complete with Amiga software & full documentation.

DESKJET TMS/RMN 8 &10	79.95
DESKJET TMS/RMN ASCII	104.95
DIGI-DROID	69.95
• DISKETTES, 50 PACK	64.95
DUAL GUN ADAPTER	24.95
DUAL JOYSTICK ADAPTOR	10.95
DUST COVER A1000 &MON	13.95
DUST COVER A2000 &MON	11.95
DUST COVER A500 CPU	8.95
• EASYL DISK FOLDER	14.95
EPYX 200XJ JOYSTICK	11.95
EPYX 500XJ JOYSTICK	14.95
ERGO STICK	17.95
FLICKER MASTER	13.95
FLOPPY WALLET	7.95
FOUR PLAYER ADAPTER	11.95
FUJI DISKETTES	19.95
GAME PLAY COMPACT DSK	12.95

JOYSTICK Y ADAPTER	10.95
KALIMAR TEAK 135 DISK	35.95
KALIMAR TEAK 60 DISK	24.95
KEYBOARD SKIN A1000	19.95
KEYBOARD SKIN A2000	19.95
KEYBOARD SKIN A500	19.95
• KRAFT ACE JOYSTICK	5.99
KRAFT MAZEMASTER JSTK	9.95
LASERJET DUST COVER	29.95
LASERJET-2 COURIER	144.50
LASERJET-2 TONER CRTG	104.95
LIGHT GUN, PHASAR	48.95
• MANAGER MOUSE	149.95
MICHTRON DISK FOLDER	10.95
MICRO 50 DISK FILE	8.95
MONITOR STAND & DRAWR	59.95
MOUSE COVER W/GLASSES	5.95
MOUSE MASTER	29.95
MOUSE MATS	6.95
• MY T MOUSE	59.95
PAINTJET BLK CARTRIDG	23.60
PAINTJET COLOR CRTRDG	29.10
PAINTJET CUT PAPER	19.10
PAINTJET DUST COVER	19.95
PAINTJET PAPER CATCH	23.95
PAINTJET PRINTR STAND	66.95
PAINTJET TRANS FILM	54.05
PAINTJET Z-FOLD PAPER	14.95
• POWER STRIP, INTEREX	19.95
POWERPLAYERS JOYSTICK	19.95
PRINT & WEAR	14.95
QUICKSHOT 2 JOYSTICK	12.95
SONY COLOR DISKETTES	22.95
SONY DISK 10 PACK	20.95
• SONY DISK 15 PACK	29.95
• STAR CURSOR JOYSTICK	32.46
STAR NX-1000 RIBBON	6.95
STAR RAINBOW RIBBON	10.95
• SWITCH BOX, AB	34.95
TAC-2 JOYSTICK	10.95
TEAK-TECH 120	32.95
TEAK-TECH 60	26.95
TRACKBALL MOUSE STYLE	39.95
WICO 3-WAY JOYSTICK	25.95
WINNER JOYSTICK	14.95
XEROX 4020 4 PACK INK	19.95
XEROX 4020 MAINT INK	19.95

BOOKS/ MAGAZINES/ VIDEO TAPES

COMPLETE SELECTION OF AMIGA TITLES	CALL

FREE SHIPPING!*

CREATIVE COMPUTERS is both a mail order company with a store's support and three store showrooms with mail order prices. Visit one of our showrooms today. You'll be amazed!

3 RETAIL SHOWROOM LOCATIONS TO SERVE YOU

SANTA MONICA & WESTSIDE: 318 Wilshire Blvd., Santa Monica, CA 90401. Tues.-Sat. 11-7 p.m./Sun. 11-5 p.m./Phone: 213-394-7779

LAWNDALE & SOUTH BAY: 4453 Redondo Beach Blvd., Lawndale, CA 90260. Mon.-Sat. 11-7 p.m./Phone: 213-542-2292

VENTURA, OXNARD & SANTA BARBARA: 2112 E. Thompson Dr., Ventura, CA 93001. Tues.-Sat. 11-7 p.m./Sun. 12-5 p.m./Phone: 805-652-0325

THE CREATIVE COMPUTERS ADVANTAGE:
- The largest dealer of Amiga products in the World
- Three store locations means excellent support
- Amiga-specific—unlike the competition, we don't claim being Amiga specific while selling other brands under another business name
- Best service center
- Uniform low pricing and largest selection, no hidden costs or catches
- We don't charge your card until the product ships

CUSTOMER SERVICE: For technical support call 213-542-2292 from 11 a.m. to 7 p.m. PST for technical questions.









***SHIPPING INFO:** No surcharge for Visa/MasterCard; 4% surcharge for American Express; 1% surcharge for Discover. Shipping within the continental United States for software orders over $100 (U.S.) is FREE. Please call for all other shipping information. Educational, corporate and aerospace purchase orders accepted.

RETURN POLICY: Call Customer Service at (213) 542-2292 for return authorization. All returns without authorization number (RMA#) will be refused. Returned products must be in original condition and packaging and must be sent back within 30 days of our invoice date. No refund on defective products or products that do not perform satisfactorily. We make no guarantees for product performance.

CONDITIONS: Creative Computers reserves the right to limit the sales of any items to local in-person pick-up only. Prices and availability subject to change without notice.

CREATIVE COMPUTERS IS INTERNATIONAL!

INTERNATIONAL TOLL-FREE ORDERING POLICIES: Minimum order $100 U.S. Orders only please. Absolutely *no* product inquiries, or any shipping inquiries, will be taken over the toll-free phone lines. For any other information, please call (213) 542-2292. We have operators versed in the following languages: English, French, and Spanish, only. Shipping prices vary and are quoted following your order. Payment is made via credit card or electronic fund transfer. For any other information please call our regular toll lines. Federal Express and International Shipping available.

INTERNATIONAL PHONE NUMBERS: Canada 1-800-548-2512; Italy 1678-74086; United Kingdom 0800-89-1178; France 19-0590-1099; W. Germany 01-30-810466; Japan 0031-11-1351; Australia 0014-800-125-712; Netherlands 06-022-8613; Norway 050-12029; Denmark 0434-0297; Switzerland 046-05-3420.

[NOTE: • = NEW ITEM.] WE CAN BEAT ANY ADVERTISED PRICE! BUT WE SELDOM HAVE TO—OUR PRICES ARE THE LOWEST! (IF YOU SEE A LOWER PRICE ON AN ITEM, GIVE US A CALL.)

Circle 199 on Reader Service card.



A Monochromatic Approach

9

A continuing series of tips, techniques, and tricks for creating more imaginative Amiga graphics.

By Joel Hagen

ALTHOUGH THE AMIGA is capable of displaying 4096 colors, only 16 value levels of a given color are possible. I have always enjoyed painting in the 16 grayscale colors for the special quality of depth and dimension one gets from a monochromatic palette. Recently, however, I have been exploring techniques that retain that feel, but stretch the apparent value scale to the full 32 colors available in DeluxePaint.

If you view the palette of a 32-color image captured with NewTek's Digi-View (or most other digitizers), you will find the colors arranged in ascending order. Digi-View actually makes palette position 0 the darkest color, and position 1 the lightest color for menu readability, with the remaining 30 colors in a smooth sequence from dark to light. Even though adjacent colors may share the same "V" value level, one or two of the "RGB" levels will be different, creating a logical value differentiation. The result is a 32-level palette—the foundation of the techniques that follow.

Creating the Palette

It is possible to create such a 32-level palette from scratch using the tools in the Palette requester, but in this case I prefer to create a digitized palette. Soft, neutral colors can be elusive to build, and the visual context of adjacent colors makes objectivity challenging. For this technique, you create a palette with the objects you select for the camera. Avoid bright colors, or a broad spectrum; the point is to limit color and seek a smooth Range of values. Using such objects as shells, stones, pieces of wood, bones, and the like should yield excellent results. The palette in the accompanying illustration, "Biomech," is the product of digitizing a piece of notebook paper lying on dark wood. The incidental colors in the value scale add vitality to the final painting while retaining an overall monochromatic tone.

I recommend working in 320×400 screen format, lo-res interlace. For convenience, I leave colors 0 and 1 for my menu colors, adjusting color 1 down the value scale to a soft amber to reduce interlace flicker. The remaining 30 colors are the painting palette. Set all Ranges but one in the palette requester to color 0 by clicking color 0, then Range, then color 0 again. Make the last Range the 30-color painting palette. With the mouse, make the background color the darkest color (color 2) and the foreground color any intermediate color. In the menu, set Prefs to Fast FB and Be Square. I toggle the cursor off with the Delete key, preferring to just look at my brush. Shift-K clears the screen to the background color, and F10 removes the menus. F5 will then put you in Shade, the primary mode for all painting that employs this monochromatic technique.

In Shade mode, tools respond only to those colors within a defined Range. One button lightens colors step by step through the other colors in that Range, while the other button darkens them in the same fashion. With the entire painting palette as a Range, your brush becomes a unique tool. One finger lightens as you move, the other darkens. The method is analogous to a favorite drawing technique of mine in which you rub graphite powder onto paper with soft leather to create shadow areas, then cut highlights back in with a kneaded eraser.

I began painting the alien skull in "Biomech" with a two-inch round brush.

By mastering this group of subtle techniques, you can extend that unique feel of monochromatic painting to the full 32 colors available in your paint program.

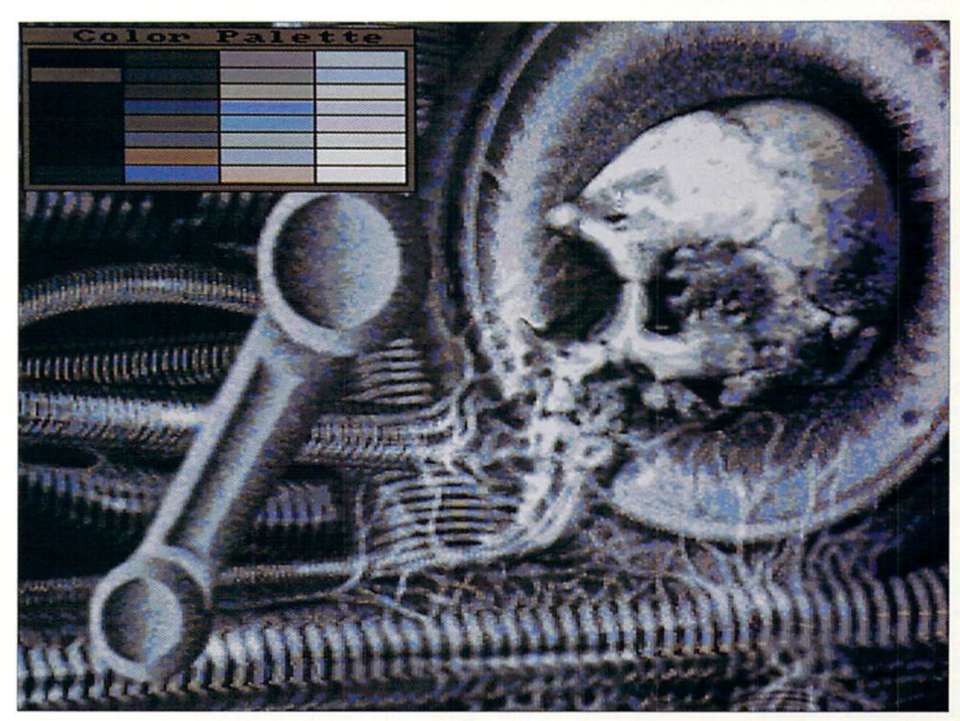
Working quickly and spontaneously, I lightened large areas, then carved them back by darkening to the background. You will come not only to accept, but also welcome the accidents and unpredictable shapes that emerge. The painting becomes a compromise between serendipity and control. In the early stages of the painting, I yield willingly to whatever character the medium itself has to offer. As the painting progresses, I exert tighter and tighter control to add the necessary definition to the image.

Having roughed out the skull, I used the "–" key to reduce the brush size as needed, working increasingly finer detail into the image, shifting rapidly between light and dark. Final details in the suture lines were done with a single-pixel brush, still in Shade mode. Shift-J copied the skull to the spare screen. I cleared the screen and began the background.

BACKGROUND AND FOREGROUND

Clicking any line tool with the right button brings up the spacing requester. I clicked Every Nth Dot, and returned to the screen to begin the large circular form. Using the unfilled circle tool in the Shade mode, I produced a disk of kaleidoscopic patterns with my two-inch brush. Still using the circle tool, but bouncing back and forth in the spacing requester between Every Nth Dot and Continuous, I highlighted the shape with a smaller brush, shaded it with another, then used Smear in the Nth Dot mode to add a ribbed texture.

The spring-like shapes were made with a quarter-inch round brush and straight-line tool, using Every Nth Dot, in Color mode (F2). By drawing a line I was able to lay down a series of quarter-inch dots. I picked up the whole line of dots as a brush and then returned to Shade mode and the curve tool (q). I drew a short curved line, and the row of dots made the entire spring. This was picked up and shrunk, and then Sheared, Rotated, and Bent, all from the Brush menu. I used it many times, overlaying it upon itself to create the background. After I placed the skull into the image, I used Blend and Smooth with small brushes to help soften edges and eliminate the "cut-out" look.



"Biomech" (above) shows the extra warmth and vitality possible with a 32-level palette, while still retaining an overall monochromatic tone. (Note the colors in the palette, as reproduced in the inset, upper left.)

The mechanical foreground object was created with the filled-circle and polygon tools. I used the Horizontal Line gradient fill with dither control set all the way to 15. After the first shape was drawn, I returned to the Palette requester and flipped the Cycle Direction arrow. This reversed the direction of the gradient fill, so that a second shape drawn within the first one created the concave illusion. Using Shade mode, I added dents, cracks, and other details as final touches. ■

Joel Hagen's credits include work in art, astronomy, science fiction, and software development. Write to him at 10512 Sawyer, Oakdale, CA 95361. Please include a stamped, self-addressed envelope.

Mystery Sweeps Winners and Prizes

If you read last month's issue, you now know the solution to "Murder at Saratoga" and the names of our 12 Finalist Prize winners. This month we award Consolation Prizes to some of our many, many readers who participated in the Mystery Sweeps.

As all of the people who submitted entirely correct solutions to the mystery received Finalist Prizes, our consolation winners were drawn from the next closest solutions.

First preference was given to entries identifying the correct victim (Syl Vestry) and Buford Langtry (the next most likely choice) as the murderer. Second preference was accorded to entries specifying the correct victim but a murderer other than Davis Longfellow or Buford Langtry (although there were two consolation winners who identified the correct murderer, Longfellow, but the wrong victim). Remaining consolation winners were chosen from otherwise correct entries that listed Jimmy "The Satchel" Mikaros as the victim (a common mistake of many contestants who correctly solved all but the very last clue in Part I).

As you can see from the list below, we were able to award a significant number of Consolation Prizes. We were pleased to acknowledge at least some of the many people who spent a considerable amount of time following our mystery throughout the summer. We are extremely grateful to the sponsors—the many developers of fine Amiga products, whose names appear next to the prizes they donated—who made the Sweepstakes possible.

We thank all of you who participated and we hope those who didn't succeed this year will come back winners next year. And be assured, we will endeavor to make our 1990 contest—whatever the theme will be—match the challenge of the 1988 Treasure Hunt and this year's Mystery Sweeps.

Finalist Prize Sponsors

Before listing the Consolation Prize Winners, we would like to acknowledge the sponsors of our top 12 prizes, the winners of which were announced in last month's issue.

Grand Prize: GO AMIGO! of Redwood City, CA
First Runner-Up Prize: LightSpeed Distribution of Portland, OR
Second Runner-Up Prize: The Software Shop of Worcester, MA
Finalist Prizes (Fourth through Twelfth):
Anakin Research
Antic Software
Cape Fear Teleproductions
Communications Specialties
DigiTek Software
Dr. T's Music Software
Electronic Arts
Hammond Photographic Services
Magnetic Images Co.
MicroWay Inc.
Oxxi Inc.
Precision Inc.
Psygnosis Ltd.
ReadySoft Inc.
Software Visions Inc.
Spectrum HoloByte
Strategic Simulations
Supra Corp.
Taito Software

Consolation Prize Winners

Complete Abacus Amiga Library—*John Orwig, Columbus, OH;* Photon Paint (MicroIllusions)—*Lewis Hatch, Los Lumas, NM;* SupraModem 2400 (Supra)—*Tony McLaughlin, Stittsville, Ontario, David Hahne, Newport News, VA;* Clip Art Disks (Magentic Images)—*Ken England, Hammonton, NJ;* Falcon (Spectrum HoloByte)—*Sylvia Bennett, Tampa, FL;* Tetris (Spectrum HoloByte)—*Debbe Loebrich, Maumce, OH.*

Superbase Pro 3 (Precision)—*Stephanie Bartz, South River, NJ, Jesse Smith, Arlington, TX, Brent Hunter, Salt Lake City, UT, Hector Gutierrez, Lindavista, Mexico, Brad King, Hayesville, NC, Jeffrey McHarg, Acton, MA;* Superbase Personal 2 (Precision)—*Jonas Winfield, Augusta, ME, Jean Augsburger, Ellicott City, MD, Arthur Entlich, Bergenfield, NJ, Billy Ray Justice, Sumter, SC, Ken Smith, Charlottesville, VA;* SuperPlan (Precision)—*Dennis FitzGibbon, South Haven, MI, Jacob Fetsch, Schererville, IN, Dewilton Haslup, Arlington Heights, IL, L. Crawford, Harrisonburg, VA, Linda Adams, Highland Heights, OH.*

PageStream (SoftLogic)—*Jack Lehman, Mount Airy, MD;* Pioneer Plague (Antic)—*Melinda Matheny, Charlottesville, VA;* Crash Garrett (Antic)—*Chris Adamo, Schererville, IN, Joseph Rattz, Sumter, SC;* Stir Crazy (Antic)—*John Manley, Cheshire, CT;* Fire Power (MicroIllusions)—*Marian Monwai, Seattle, WA;* Faery Tale Adventure (MicroIllusions)—*Charles Wall, San Lorenzo, CA;* Skyfox (Electronic Arts)—*Daniel Feyma, Brooklyn Park, MN.*

Dragon's Lair (ReadySoft)—*Harry Bratt, Mt. View, CA, Jim McCoid, Papillion, NE, Jose Dieppa, Homestead AFB, FL, Blyden Potts, Oxford, NY, John Klovstad, Whitefish, MT;* Cosmic Bouncer (ReadySoft)—*James Funk, Denver, CO, Katie Meers, Powell, OH, Pete Monwai, Seattle, WA, Scott Shaffer, Weston, WV, Ellie Friml, Hollis, NH, David Mitzenberger, Portland, OR;* Scary Mutant (ReadySoft)—*Tom Fusco, Rockville, MD, Brian Koehler, Pasadena, MD, Marjorie Mack, Covington, LA, Daniel Weir, Anacortes, WA, Brian Howard, Stanford, CA, Paul Baron, Munhall, PA;* Rock Challenge (ReadySoft)—*David Neighbors, West Monroe, LA, Peter Castro, Sunnyvale, CA, Dieter Bloser, Cleveland Heights, OH, Mike Gentry, Cookeville, TN, Rick Wirch, Monona, WI, Matt Scotten-Preecs, Portland, OR.*

Gold of the Realm (Magnetic Images)—*Scott Touzet, Monroe, LA;* Airball (MichTron)—*Leon Martin, Fairborn, OH;* Fight Night (MichTron)—*Michael Pershing, Xenia, OH;* HiSoft BASIC Pro (MichTron)—*Lindsay Zollinger, Phoenix, AZ;* M (Intelligent Music)—*Andrew Funk, Fort Collins, CO, David Rawle, Hendersonville, TN;* Quest I (Sound Quest)—*Ricky Hortman, Monroe, LA, Judy Purtell, Long Beach, CA, Dan Cooley, Clinton, IA, Mike Garner, Falls Church, VA, Mike Jourdan, Lexington, KY;* Editor/Librarian (Sound Quest)—*Jim Roberts, Snellville, GA, Brad Anderson, Salem, MO, Bruce Loebrich, Maumce, OH, Kevin Wiese, Orlando, FL, Robert Norton, Madison, WI.*

Mind Light (Visual Aural)—*Robyn Thurman, Lexington, KY;* Nimbus (Oxxi)—*C.D. Whitire, Phoenix, AZ;* Tax Break (Oxxi)—*Willa Boisseau, University City, MO, Todd Allendorf, Clinton, IA;* P.D. Disk Set (PD Software Resource)—*Chris Richard, Liverpool, NY, Carolyn Argo, San Antonio, TX;* Who! What! When! Where! (Blue Ribbon Bakery)—*Bill Richard, Fort Myers, FL, Paige Plummer, Lexington, KY, John Fowkes, Huntington Beach, CA, Rahila Ansari, Shaker Heights, OH, David Hetzel, So. Milwaukee, WI;* Set of Course Disks (Moonlight Dev.)—*C. Johnston, Euclid, OH;* Thinker (Poor Person Software)—*Russ Purtell, Redondo Beach, CA, Ken Menderhall, Dayton, OH.*

Bubble Bobble (Taito)—*Teresa Richard, Monkton, MD, Fred Maloney, Grosse Pointe, MI, Timothy Boykin, Stanford, CA, Mickey Aigo, Offutt AFB, NE, Nancy Ruba, Orange City, IA, Jim McCormick, London, Ontario, Karen Schellman, Ballwin, MO, Mike Douglas, St. Louis, MO, Jennifer Stewart, Fairfax VA, L.C. Debbe, Maumce, OH;* Operation Wolf (Taito)—*Ann Freeman, Hickman, KY, James Quinn, North Wales, PA, Mike Hale, Ballwin, MO, Joe Saunders, Memphis, TN, Mike Goldstein, Clifton, VA, Darrel VanDusen, Spring Lake, NC, Fred White, Haverton, PA, William Richard, Syracuse, NY;* Renegade (Taito)—*Bonnie Packert, Escondido, CA, Terry Richard, New York Mills, NY, Edwin Long, Bartlett, TN, Gary Elliott, Bolivar, MO, Jim Alerico, St. Peters, MO, Michael Chiofolo, Mount Holly, NJ, Dawn Seery, East Lyme, CT, Ken Sherman, Oakland, CA.*

Disk Magic (DMH Tech.)—*Phil Bolton, Bloomington, MN, George Affleck, Markham, Ontario, Joe Rozman, Scott AFB, IL;* Microfiche Filer (Software Visions)—*Patrick Dretnick, Hagersten, Sweden, J. Dale Holt, Manchester, TN, Guillermo Garcia, San German, Puerto Rico, Thomas Tock, Waterloo, IA;* Solitaire Royale (Spectrum HoloByte)—*Gale Loebrich, Toledo, OH, Patrick Rogers, South Bend, IN;* Mastering CLI (Graphic Expressions)—*Richard Sadler, Norwich, CT;* A.L.F. G (Prespect)—*Kevin Freeman, Carbondale, IL;* OMTI HDD Controller (Prespect)—*Joseph Shaughnessy, Longwood, FL.*

Heroes of the Lance (Strategic Simulations)—*John McCormick, London, Ontario, Cory Humphrey, Cookeville, TN;* Demon's Winter (Strategic Simulations)—*Doug Leighty, Rimersburg, PA;* Questron (Strategic Simulations)—*Robert Baker, Columbus, OH;* Multi-Prefs (Soft-Link)—*Tomie Anderson, Salem, MO, Adam List, Chicago, IL, Al Shortt, Gulf Breeze, FL, Thomas Martin, New York, NY, Steven Jones, Paint Lick, KY;* Stuff-It (Soft-Link)—*Mary Jensen, Cedar Falls, IA, Chris Gayde, Monroe, MI, Rick & Kerri Farrell, North Lauderdale, FL, Paul Zoll, Seaford, NY, Matthew Dunkle, Fayetteville, TN;* Hole-in-One (DigiTek)—*Christopher Schiller, Chicago, IL, M. Russo, Glendale, AZ;* Powerstyx (DigiTek)—*Richard Page, Thunder Bay, Ontario;* Western Games (DigiTek)—*Donna Sadler, East Lyme, CT;* Joe Blade (DigiTek)—*Leonard Nadolny, OAFB, NE, Keith Martin, Fridley, MN, John Sanders, Pennfield, NY.* ■

Sponsored by

AMIGA WORLD

AmiEXPO

THE AMIGA

PERSONAL COMPUTER SHOW

Come See The California Goldrush!

October 20-22, 1989

Santa Clara Convention Center

Santa Clara, CA

Over 10,000 Attendees and 120 Amiga Companies Will Be There.
STRIKE IT RICH AT AmiEXPO-CALIFORNIA!

Admission includes the Exhibition, Seminars, Keynotes & Amiga Artists Theatre!
120 Amiga Exhibitors Featuring State of the Art Software and Hardware, at the lowest prices!

Master Classes Available in Amiga Graphics, Video, Programming, Animation, Music and Publishing!
Seating for Master Classes is limited; call for schedule and availability before registering.
PRE-REGISTRATION DEADLINE IS OCTOBER 6, 1989

For Hotel Reservations Call the DoubleTree Hotel at (408) 986-0700.
Hotel reservations deadline: September 20th. 1989.
For discounted airfares, call American Airlines at (800) 433-1790 and give them this ID: S-83536.

REGISTER TODAY!

Register by Mail, or Bring This Coupon to the show or Call 800-32-AMIGA Nationwide (or 212-867-4663)
For Your Ticket to The Amiga Event!

Yes, I want to come to AmiEXPO - California

___ Friday ___ Saturday ___ Sunday

Registration is $5 Additional At The Door

One day - $15 _____
Two days - $20 _____
Three days - $25 _____

Master Class(es) - List Class and Time - $60 Each

________________________ ____
________________________ ____
________________________ ____
________________________ ____

Circle 72 on Reader Service card. **Total Amount Enclosed** _____

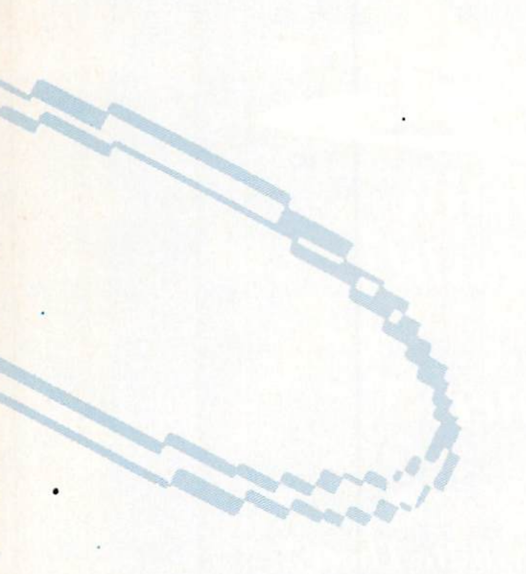
NAME ________________________
COMPANY ________________________
ADDRESS ________________________
____
CITY ____________ STATE ______ ZIP ______

For ___ MasterCard or ___ VISA Payment
Expiration Date ________________________
Account Number ________________________
Name as it appears on card: ________________________
Signature ________________________

Make Check or Money Order Payable to:
AmiEXPO 211 E. 43rd St., Suite 301
New York, NY 10017

Bring Coupon to the door and get these Pre-Registration Prices!

Scripts For Success Part 1



This three-part series from our AmigaDOS directing team will demonstrate why 1.3's new Shell, not Hollywood, is the hot spot when it comes to writing and producing blockbuster "scripts." Ready to roll on Act One . . .

By Mark L. Van Name and Bill Catchings

TYPING THE SAME commands over and over again for often-used routine procedures is one of the most annoying and time-consuming tasks. A powerful feature, however, of AmigaDOS 1.3's new Shell—its ability to create scripts—can lighten the load considerably.

Scripts are sequences of commands that you can execute as if they were single commands. Scripts (also called batch files or command files) are actually ASCII files that contain lists of commands. When you execute a script, the Shell treats it essentially as if you had typed the commands in the file.

You can create scripts with any text editor that can save its output as pure ASCII. This includes ED and MEMACS, as well as Notepad—although with Notepad you must stick to one font and you cannot use any styles. You can put any of the normal Shell commands in a script, as well as such special commands as IF that work only in scripts.

Let's start with a very simple example: a script that saves the files in your current directory to a directory named BACKUP on the disk in your external drive, df1:. First, create the directory BACKUP on the disk in df1:. Then, using your text editor, create a file named SAVEIT that contains the single line

```
COPY #? DF1:BACKUP
```

There are three ways to run a script. Two work from the Shell, while one runs from Workbench. All scripts, however, work the same way within each method, so our example will suffice to explore all three approaches.

Executing Scripts from The Shell

The traditional way to run a script is with the EXECUTE command. Simply follow that command with the script file's name, as in

```
EXECUTE SAVEIT
```

This approach appears to require you to put the script you want to run in your current directory, which could be a problem if you use several scripts regularly. Don't worry; EXECUTE is smarter than that. When you enter

```
EXECUTE <file>
```

EXECUTE first checks for <file> in the current directory. If it is not there, EXECUTE then checks both the S: directory (usually Workbench1.3:S) and all the directories on your path. (S: is the standard AmigaDOS script directory, in the same way that C: is the standard command directory. If you use a script often, you should put it in S:.)

In AmigaDOS 1.3, however, a new, shorter approach to running scripts has been added. To use the new method, first you must tell AmigaDOS that your script file is a script. To do so, use the PROTECT command to set the file's script protection bit, as in

```
PROTECT SAVEIT +s
```

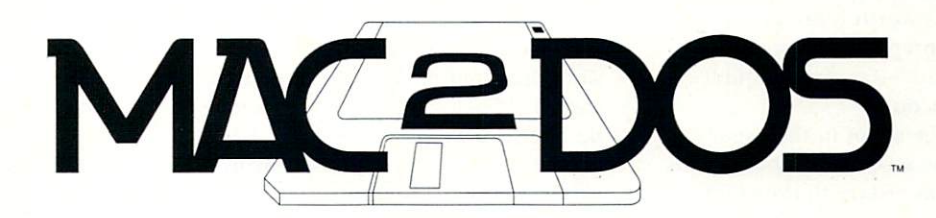
Now you can treat the script file almost as if it were an executable program. To run it, simply type its name at the command prompt:

```
SAVEIT
```

Because the Shell can tell that SAVEIT is a script file, it calls EXECUTE to run that file. This approach works even if EXECUTE is not resident, although EXECUTE must be in a directory (usually C:) where the Shell can find it.

Executing Scripts from The Workbench

The ability to execute scripts from the Workbench, courtesy of the program IconX, is another feature of 1.3. (You never run IconX directly—in fact, you cannot run it from the Shell—but Workbench does use it to execute scripts.) ►



Mac-2-Dos lets you read and write Macintosh diskettes on your Amiga!

Mac-2-Dos gives your Amiga the power to read and write files to and from 400k and 800k Macintosh floppy disks using a standard Macintosh-compatible 3.5-inch external floppy disk drive connected to your Amiga.

Here are a few typical Mac-2-Dos uses: ✔ Amiga users can now have access to the extensive variety of Macintosh clip art available on Macintosh disks! ✔ Amiga users can now take their Amiga PostScript files (on a Macintosh diskette) to most any typesetting service bureau to be output on professional typesetting equipment! ✔ College students who are required to have a pricey Macintosh can now choose the Amiga and still meet the requirement of being Macintosh compatible! ✔ Amiga users can transfer all kinds of files, like word processing and desktop publishing files, spreadsheet files, or database files. ✔ Musicians can quickly and easily transfer Standard Midi Files (SMF) between the Macintosh and Amiga!

MAC2DOS MAC AMIGA MAC2DOS

Mac-2-Dos includes a custom hardware interface, driver software, file conversion software, and, optionally, a Mac-compatible 3.5-inch floppy drive. The hardware interface plugs into the Amiga external disk drive connector or into the last external drive of the daisy-chained disk drives. The Mac drive draws its power from the Amiga.

PACKAGE A: Package A includes a custom hardware interface, file transfer software, and file conversion software. **Only $99.95***

PACKAGE B: Package B includes a custom hardware interface, file transfer software, file conversion software, a Mac-compatible 3.5-inch floppy drive, and a software driver to allow the Mac drive to be used to read and write standard AmigaDOS diskettes as well. **Only $349.95†**

LIMITATIONS: Mac-2-Dos is a disk file transfer utility program; it is not a communications program, nor is it a Macintosh emulator. It DOES NOT permit Mac programs to run on the Amiga.

* Plus $3.00 shipping/handling, † Plus $5.00 shipping/handling
CO residents add appropriate sales tax.

QUARTERBACK™

The FASTEST Hard Disk Backup Utility!

"Many in the Amiga community consider Quarterback V2.2 the standard of our community.... My overall impression of Quarterback is smooth and complete.... For the average Amiga harddrive owner, Quarterback is still the utility of choice."

*- Steve Dock, **The Amiga Sentry**, March, 1989*

"...Quarterback is the program I've chosen to keep my hard disk backed up.... Given the added power and lower price of Quarterback, it would be my first choice for a hard disk backup program."

*- Matthew Leeds, **Commodore Magazine**, June, 1989*

"The fastest of the lot, Quarterback V2.0 copied my 4.3 megs to five floppies in four minutes and fifty seconds. The user interface is smooth and intuitive, the process painless and reliable, and the speed a good sight better than even second runner up.... There are just enough gadgets around to make things easy, and not so many as to make them confusing. This is the program we use to back up our hard disk and Bernoulli data."

*- Mark R. Brown, **INFO #26**, May/June, 1989*

Only $69.95 Plus $3.00 shipping and handling, CO residents add sales tax.

Coming Soon! **QUARTERBACK TOOLS**
A collection of high-quality user-friendly utilities.

DOS 2 DOS™

Transfers MS-DOS and Atari ST files to and from AmigaDOS!

It transfers both binary (pure data) and ASCII (text) files.
Let DOS-2-DOS be your PASSPORT to the world of foreign disk formats.

Only $55.00
Plus $3.00 shipping and handling, CO residents add appropriate sales tax.



Central Coast Software
424 Vista Avenue
Golden, Colorado 8040
Phone 303 / 526-1030
FAX 303 / 526-0520
Dealer Inquiries Welcome

MasterCard VISA

It takes a bit of effort to prepare a script file for use from the Workbench, but the result is worth it because you can run a suitably prepared script as you would a program—simply by double-clicking on its icon.

First, write the script in the usual way. You may set the script bit, although it is not absolutely necessary to do so. Because you want to use the script from the Workbench, you must give it an icon. (Make sure it is a Project icon, not a Tool icon.) An easy way to obtain a Project icon is to copy the icon of the file ReadMe in the main directory of the 1.3 Extras disk. With that disk in df1:, you can assign SAVEIT an icon by entering

COPY DF1:ReadMe.info SAVEIT.info

The next step is to edit your script's icon so that IconX can work with it. Go back to the Workbench screen, open the drawer containing your script file, and click once on its icon. Then move the mouse cursor to the Workbench menu and select Info. What appears is a full-screen window labeled "Info 1.3" in which you will perform your editing.

Make sure the icon's TYPE (right under its NAME) is Project. (If it is not, click QUIT to exit Info, go into the Shell, delete this icon, and get a Project icon for your script.) Click in the Default Tool field. Delete any characters that are already in that field, and then enter

C:IconX

We assume here that you use the standard C: directory. If not, enter the full pathname of the IconX program on your Workbench disk.

Now check the Tool Types field. If it is blank, click on the up and down arrows (next to the words "TOOL TYPES") to make sure that there are no hidden tools. If no tools appear, you are all set to run your script. If you obtained your icon by copying ReadMe's icon, however, you have some additional work to do. In fact, you will find four tools here. Click on the Delete button next to the Tool Types text field to delete the currently visible tool. Repeat that process until all the tools are gone. Verify this by using the up and down arrows. Do not merely delete the characters in this text field; a blank tool will confuse IconX and stop it from running your script. Use the Delete button to remove them all.

Now we're ready to go. Click SAVE to exit IconX and save your changes. To run your script, double-click on its icon.

A Shell-style window will appear in the same spot and in the same size as the standard Shell window, but its label will be IconX rather than Shell or CLI. The output of your script will appear in that window; SAVEIT will display the names of files as it copies them. When the script is done, the window will disappear immediately and you will be back to the Workbench.

GETTING AROUND THE GLITCHES

That rapid disappearance can be annoying when you need to read your script's output, but, fortunately, the problem is easily remedied. Bring up Info on the icon as before. Go to the Tool Types field, and this time click on ADD, not DEL. Type the following line into that text field:

DELAY=150

This line will make IconX wait 150 "ticks" after the script is done before it closes the window. An AmigaDOS "tick" is one-fiftieth of a second, so that a value of 150 will give you a three-second delay. You can substitute any number you wish to achieve the delay of your choice.

Be sure to type the line given above just as it appears. If you leave any spaces before or after the equal sign, or if DELAY is not all in uppercase, IconX will ignore your new instructions. Also, beware of a bug in the AmigaDOS 1.3 Enhancer Software manual. It states that you can use a DELAY=0 here to make the IconX window stay open until you type CTRL-C. That is not the case. To verify that the delay works, click SAVE in Info and then run the script again.

While this procedure solves one difficulty, two nagging problems persist: You are stuck with that default window, and the window's name is IconX, not that of your script.

Go back to Info. The solution is to add another tool, so click on ADD in the Tool Types field. This time, however, you will need to add a Window tool that will define the location, size, and title of your script's window. To do so enter the following line in the format:

WINDOW=<handler:><startx>/
<starty>/<width>/<height>/<label>

where <handler:> is the name of the window handler you want—either NEWCON: for the new Shell handler (which we recommend), or CON: for the CLI's handler.

The next four entries define the placement and dimensions, in pixels, of the window. <startx> defines the left margin of the window in relation to the edge of the screen, while <starty> sets the depth of the window's starting position from the top of the screen. To begin the window at the upper left corner, for example, make both of these 0. The <width> and <height> of the window are also defined in pixels. To make the window the width and height of a full, non-interlaced screen, use a <width> of 640 and a <height> of 200. (The slashes (/) between the entries are required.)

With <label> you assign the name that will appear in the upper left corner of this window, replacing IconX. The label can contain spaces, and unlike with the Shell, where you must surround a label containing spaces with quotes, here you can simply type in the spaces. (If you were to use quotes here, they would appear as part of the window's title.)

Thus, to create a full-screen window whose label is My Script, enter

WINDOW=NEWCON:0/0/640/200/
My Script

Again, be careful: WINDOW must be all caps, and no spaces should appear before or after the equal sign.

It is perfectly okay to have both the Delay and Window tools in the same script icon, even though you are not using them at the same time. Remember, however, that you can edit or delete only the tool that is currently visible. Use the up and down arrows to make visible the tool you wish to edit.

Click SAVE, and you are ready to proceed. Now when you run SAVEIT, its window will follow your specifications, not the Shell standard.

You should now have enough general background on *running* scripts. In the next two columns we will look at the commands and features that you can employ to *write* powerful scripts. ■

Bill Catchings and Mark L. Van Name are contributing editors to AmigaWorld. *Write to them at 10024 Sycamore Rd., Durham, NC 27703.*

The Neriki Image Master™ Genlock.

It works with the Amiga®.





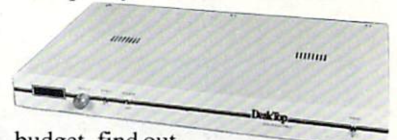
in it.

That has a lot of obvious advantages—no expansion slots are wasted, no added load on the power supply, and none of the keyboard commands that have to be used with internal genlocks.

But the real advantages are in performance. The Neriki Image Master meets NTSC broadcast standards. It encodes at 5.5 mHz and delivers full 500 line resolution. Even third generation tapes are broadcast quality. It works with any Amiga computer and all Amiga text, graphics, paint and animation software. It genlocks to any video source—studio reference, black burst, camera, TBC, and any suitable video tape source in any format (including S-VHS) — and puts out high quality composite or R-G-B baseband video for flawless productions. It can be used up - or down-stream. And it gives you simple and instant front panel controls for Chroma Phase (coarse and fine), Effect Key, Enable, Key Invert, and Dissolve.

The Neriki Image Master is RS-170A approved and available now—with a full one-year limited warranty. More information is yours for the asking, Just call or write.

NEW–If you have to meet broadcast quality on a non-broadcast



budget, find out about the economical new Neriki DeskTop™ genlock.



TELMAK INC.
P.O. Box 54 Plainview, New York 11803
Phone 1-800-637-4540

NERIKI DISSOLVE EFFECT DISSOLVE KEY CHROMA PHASE 180° FINE IMAGE MASTER GENLOCK for AMIGA POWER ON

Circle 45 on Reader Service card.



Bad Games Anonymous

What happens when you can't just say no.

By B.G. Hunter

A FEW MONTHS ago I noticed a disturbing theme in the letters I received from readers. Many Amiga owners are so addicted to computer gaming that they compulsively play inferior games they shouldn't even like. To rescue these readers, I've started a self-help-by-mail organization, Bad Games Anonymous (BGA). Here are some confessions from the charter members. If, as you read these letters, you catch glimpses of your own gaming behavior, then it might be time for you, too, to join BGA.

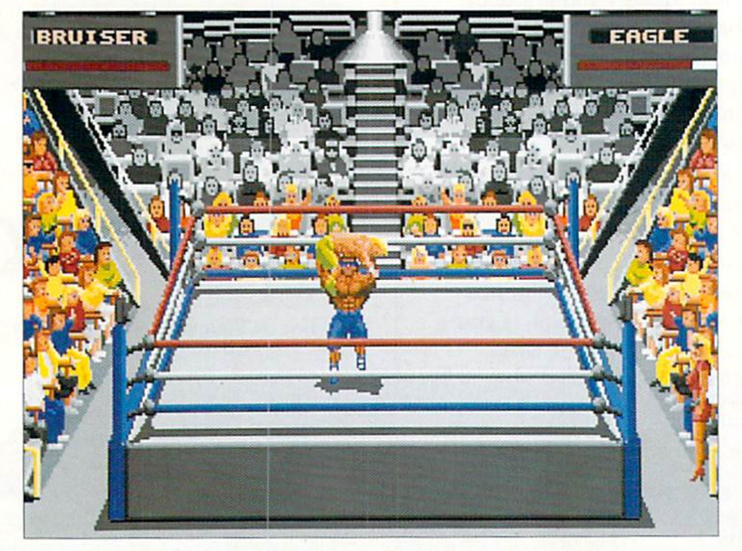
Consider "Head Lock's" plight:

Dear B.G.,

I'm hooked on International Championship Wrestling (Avatar Consulting, $32.95). ICW is as bad as the real thing, maybe even worse, but, like many wrestling fans, I can't help myself.

I usually start out as the high-flying Eagle, master of the Texas Bulldog. I'm sorry, but I just love fighting my way through Ivan, the Russian assassin, and Khan, the Mongolian Killer, so that I can finally meet Bruiser, the ICW Champ, mano a mano. First I box with them, wearing them down, and then I switch to wrestling mode and trash them with a suplex or two, an atomic drop, maybe a power slaw, and my favorite, the piledriver. I love the grunts and groans, the satisfying thump as my opponent hits the mat.

Getting him to the thump is guess work. It's almost impossible to remember which joystick position does what, and every bit as hard to learn to control the joystick so that you can finally lay a hand on your opponent, but I don't care—I'm hooked. I don't even mind the fact that all I can do when my opponent has me down is shake the joystick wildly and scream at the screen. Help!



Bruiser's on a wrestling rampage.

"In the Gutter" no longer leaves his home he's so thoroughly afflicted:

Dear B.G.,

I want to stop playing Superstar Indoor Sports (Mindscape, $49.95), but I can't. I keep thinking it will get better, but it never does.

Five hours of bowling made my hand ache as if I ►

Advanced Dungeons & Dragons®

COMPUTER PRODUCTS



Role-Playing

Pool of Radiance uses the legendary ADVANCED DUNGEONS & DRAGONS® role-playing system to make all your computer gaming fantasies come true. Embark on dangerous quests in the magical FORGOTTEN REALMS™ game world – made real by computer animation with combat that adheres strictly to AD&D® game standards. Prepare yourself for the ultimate fantasy role-playing experience!


IBM DISPLAY

MACINTOSH
C-64/128
IBM
APPLE II

Coming Soon:
AMIGA
ATARI ST
APPLE II GS

Action

Heroes of the Lance gives you non-stop excitement and fully animated action in the mystical DRAGONLANCE® game world. Guide eight Companions, each with different skills, deep into the treacherous ruins of the temple Xak Tsaroth. They'll need all your skills to help them survive the attacks of giant spiders, demons, dragons and countless other terrors. Retrieve the precious Disks of Mishakal — if you dare!

ATARI ST DISPLAY

AMIGA
ATARI ST
C-64/128
IBM

Action Adventure

Hillsfar is the training grounds for your heroes. Transfer your characters from *Pool of Radiance* or *Curse of the Azure Bonds* and increase their skills through real-time workouts such as combat, maze-running, lock-picking, archery and horseback riding. Succeed in *Hillsfar* and your characters' statistics will actually improve. They will emerge from Hillsfar more prepared than ever to survive further adventuring.


IBM DISPLAY

AMIGA
ATARI ST
C-64/128
IBM


TSR, Inc.



To Order: Visit your retailer or call 1-800-245-4525 to charge on VISA or MasterCard. To receive SSI's complete product catalog, send $1.00 to: SSI, 675 Almanor Avenue, Sunnyvale, CA 94086.

STRATEGIC SIMULATIONS, INC.®

Manufacturers' Addresses

Avatar Consulting
distributed by Digital Wizards
9307 Carlton Hills Blvd.
Santee, CA 92071
619/449-5218

DigiTek Software
8910 N. Dale Mabry
Executive Center, Suite #37
Tampa, FL 33614
813/933-8023

Mindscape
3444 Dundee Rd.
Northbrook, IL 60062
312/480-7667
800/221-9884

had been at the lanes. If I kept fiddling with the ball weight, the alley slickness, the aiming arrow, my release point, and the skill level, I knew I could win. The next problem would be reproducing the complex formula for future games.

Bowling is tolerable, however, compared to darts and ping-pong. I wasted hours trying to master the overly complicated dart-throwing technique: depress the joystick button to aim, release it to determine the throwing angle, and then click again at the appropriate power setting. With all the dials spinning and power bars pulsing I lost track of the dart. In ping-pong, I understand the backspin and the smash techniques, but I can rarely get to the ball to use them. The paddle always drifts across the screen at the same speed, no matter how quickly I react or how fast the ball is moving. I often flail at air. Please help me.

Written in crayon in a large, barely legible scrawl, a letter from "Little Rumbler" said:

Dear Mr. B.G.,

I got tired of doing math problems in that Discovery game. I went to my daddy's room and took Thunder Boy (DigiTek, $34.95).

A little blond boy in diapers jumps over spiders with stingers and runs away from bats and other bad things. He has to go fast before he runs out of energy. The boy tries not to get killed by these things. He's supposed to save "his woman" that some dragon kidnapped. I don't understand why he'd even want a woman, but I figured it was okay because it was only a game. Besides, he makes a really neat, bad scream when he dies. He dies a lot. I can't make him jump and run very well. I read the rules, but they were shorter than my reading group lessons at school. Why is something so silly, so hard?

I don't want to keep playing this game. Don't let me try to save that woman any more!

I vow to do my part, Little Rumbler and bad game junkies everywhere. I'll be ever vigilant, ever honest in my quest to separate good games from bad, to try to stop any more innocents from being sucked into the painful trap of bad game addiction. □

Although not the type to be caged in an office, B. G. Hunter does skulk in occasionally to pick up his mail. Write to him c/o AmigaWorld, *Editorial Dept., 80 Elm St., Peterborough, NH 03458.*

GAME REVIEWS

SimCity
Populous

By Peter Olafson

QUITE A transformation has been wrought in my life with the arrival of SimCity and Populous, two delightful programs that allow would-be Apollos to be omnipotent on scales both global and municipal. It's long past the seventh day since these two arrived, and I haven't rested. I haven't even come up for air.

SimCity permits you to design a city from the ground up, and to try to master the problems plaguing the "sims" who then build and inhabit it: pollution, traffic, unemployment, the whole bit. In Populous, you have to build up or tear down the ground itself to encourage your people—an animated lot of top-tappers in *Flintstones* outfits—to build the settlements themselves, while stomping the minions of an enemy god.

The animation provides the initial tickle; it's easy to forget playing the games, and just watch the little people run around your creation like madmen. Things will come apart quickly without your guiding hand. In SimCity, you lay out streets, bridges, parks, commercial, residential and industrial zones, power plants, airports, and seaports. The residential zones sprout houses, cars appear on the roads, ships on the waterfront, planes in the sky. The stadium ►


FALCON
"IT'S EFFECTIVELY FALCON II!"
—94% Rating, The ONE, June 1989
12 NEW MISSIONS FROM SPECTRUM HOLOBYTE
MAKERS OF THE ORIGINAL, AWARD-WINNING FALCON!
You're deep in enemy territory on a critical mission when bogeys appear at 12 o'clock. Business as usual. In the meantime, those deadly T-80 tanks are nearly within firing range of your airfield. Spectrum HoloByte's new Falcon Mission Disk gives you the incredible maneuverability and weaponry of your original Falcon F-16 simulation, plus a new set of missions with more enemy vehicles, new terrain, and improved graphics and playability. Your objective: total defeat of the enemy by destroying his industrial and ground assets, while protecting your base from attack. The enemy comes by land, sea and air; you'll have to dig deep into your bag of tricks to repel this attack. It's a whole new world of challenges with the Falcon Mission Disk. Expand your horizons as you go head-to-head with the latest in flight simulations.
"The ultimate flight simulation just got better."
—The One, June 1989
Original Falcon™ program required to run the Falcon Mission Disk.
FALCON
OPERATION: COUNTERSTRIKE™
FALCON MISSION DISK™
Spectrum HoloByte
Spectrum HoloByte™
A Division of SPHERE, INC.
2061 Challenger, Drive Alameda, CA 94501 (415) 522-0107
Available on Amiga® and Atari® ST™
Circle 141 on Reader Service card.
FALCON, Spectrum HoloByte, Operation: Counterstrike, and Falcon Mission Disk are trademarks of SPHERE, Inc. Amiga is a registered trademark of Commodore-Amiga, Inc. Atari is a registered trademark and ST is a trademark of Atari Corp.

fills up for home games. Put a nuclear power plant in the middle of a suburban neighborhood and people will move away. And woe betide the simulated city that doesn't have enough money to cover its budget come January 1st. You can track your progress via the graphic overlays, charts, annual budget, year-end population survey, and opinion poll. While this game is the most sophisticated ant farm a kid ever had, it's not so sophisticated that you can't just boot up and fool around.

If you get bored with your creation you can select a cataclysm to rain down upon it. There are also a number of pre-built, problem cities—such as post-meltdown Boston and post-firestorm Hamburg—to redeem. If you master all of the above, the file format for cities is identical on the Amiga, IBM, and Macintosh versions, and you can exchange your creations; I've already spotted a handful on the networks.



The fate of Populous dwellers is in your hands.

Populous isn't the social wars on crime and poverty; it's more like war, period. You help your people settle land, increase their number (and hence your power or "manna") and give the hardest of times to rival settlers in red suits who are aided and abetted by another god. To do so, you raise and lower land to provide a nice level surface for construction, while using earthquakes, swamps, volcanoes, and floods to give your opponent—either the computer or another schnook with a modem—a nasty pitted and rocky one. (Building volcanoes on top of one another in the enemy's chief civilized plain effectively makes that territory unusable for the next millennium or so.)

The overhead view of SimCity is impressive, but Populous has to be seen to be believed. The bulk of the screen is taken up with two maps: a "Book of Worlds," showing the full playfield, and a glorious perspective view of a closeup map complete with settlements from grass huts to turreted castles, people, trees, mountains, and coastlines. The icon system isn't quite as painless as SimCity's, but it's the next best thing, and you'll be cutting down the heathens in no time. The atmospheric, Gregorian chant-like music and special effects (heartbeats, for instance) provide just the right apocalyptic touch as your civilization does the dance of death. ►

HOURS:
8 AM to 7 PM Monday - Friday
8 AM to 4 PM Saturday
Call on Sunday

The Software Shop, Inc.

Your AMIGA Software and Hardware Marketplace

Visa and MasterCard Accepted





Hardware Spectacular! Sensational Savings! Compare!

HardCards w/HF2000		HardCards w/FastCard		FastTrack A500/A1000		Supra HardCards		Memory Expansion A2000/A2500/A500/A1000			
HardFrame	$ 249	FastCard	$ 159	FastTrack Sys.	$ 379	Supra Controller	$ 210	8Up 2Mg	$ 435	Starboard Ok	$ 269
138N 32Mg	589	138N 32Mg	506	138N 32Mg	722	138N 32Mg	579	8Up 4Mg	689	Starboard 512K	339
157N 48Mg	659	157N 48Mg	589	157N 48Mg	799	157N 48Mg	629	8Up 6Mg	929	Starboard 1Mg	399
Quantum 40Mg	729	Quantum 40Mg	639	Quantum 40Mg	869	277N 63Mg	739	8Up 8Mg	1159	Starboard 2Mg	579
Quantum 80Mg	1059	Quantum 80Mg	979	Quantum 80Mg	1199	Quantum 40Mg	679	Spirit 512K	305	MiniMeg 512K	378
Quantum 105Mg	1129	Quantum 105Mg	1039	Quantum 105Mg	1279	Quantum 80Mg	1011	Spirit 1Mg	379	MiniMeg 1Mg	459
277N 63Mg	759	277N 63Mg	689	277N 63Mg	889	Quantum 105Mg	1099	Spirit 1.5Mg	439	MiniMeg 2Mg	599
External 5.25 Drv	$ 179	External 3.5 Drv	$ 119	Internal 3.5 Drv	$ 89	Digi-View Gold, WV	1410	Panasonic camera w/lens and Copy stand			$399

ACCESSORIES

A-B Switch cable	$35.00
A/B/C/D Switchbox	63.00
Boing optical mouse	109.00
Copy Stand	65.00
Ece Midi 1000	52.00
Ece Midi 500/2000	52.00
Epyx 500JX	15.00
Ergo Joystick	17.00
Freedom stick	65.00
Infared mouse	176.00
MD120 3.5 Disk holder	29.00
MD60 disk holder	26.00
MD64 disk holder	26.00
Modem cable A1000	15.00
Modem cable A2000/500	15.00
Mouse holder	6.00
Mouse master	29.00
Mouse pad	9.00
Multisync cable I-102M/F	24.00
Okimate black ribbon	5.00
Okimate color ribbon	8.00
Power strip 6 outlets	17.00
Printer cable 2000/500	15.00
Printer cable A1000	15.00
Quick shot Joystic	15.00
Ribbon panasonic all	10.00
Slick stick	8.00
Star NX black ribbon	8.00
Star NX color ribbon	12.00
Tilt and swivel stand	21.00
Xerox 4020 500/sheet	25.00

CAD SYSTEM

Draw 2000	$183.00
Home builder cad	129.00
Home builder choice	53.00
Intro cad	51.00
Logic works	65.00
Pro-Board	399.00
Pro-Net	399.00
X-Cad system	385.00

A500/A2000/A2500 PERIPHERALS

A1084S stereo monitor	CALL
A2000 HD 40mg28ms w/cont.	CALL
A2058 2mg 8mg ram board	CALL
A20620/2meg 32bit	CALL
A20620/4mg 32bit Mem	CALL
A2090A HD controller	CALL
A2300 Genlock	CALL
A2500 HD40mg28ms3mgMem 68020/68881	CALL
Amiga 2000 Cpu	CALL
Amiga 500 CPU	CALL
AT Bridge card A2286	CALL
Bridge card A2000	CALL

COMMUNICATIONS

Atalk III	$65.00
Atredes profess BBS	96.00
BBS pc	96.00
Diga	50.00
Online Platinum	69.00

CREATIVE PRODUCTIVITY

Analytic art	$39.00
Gizmoz enhanced	45.00
Intellitype	35.00
Magellan	129.00
Master type	25.00
Mavis beacon typing	33.00
Your family tree	32.00

DATABASE MANAGEMENT

Acquisition	$189.00
Data retrieve	51.00
Data Retrieve Prof.	189.00
Dbman	125.00
Micro base	24.00
Micro fiche filer	64.00
Microfiche filer plus	115.00
Organize	49.00
Softwood file II gs	79.00
Super base	52.00
Superbase pers. II	98.00
Superbase Pro. 3.0	229.00
Superbase professional	189.00

PROGRAMMING LANGUAGES

A/C basic	$129.00
A/C fortran	195.00
Algebra ii	33.00
Arexx	33.00
Assem pro	65.00
Aztec C developer	195.00
Aztec C professional	129.00
Aztic complete devel.sys.	315.00
Benchmark C library	60.00
Benchmark iff library	62.00
Benchmark modula 2	128.00
Benchmark simplified	62.00
Cape 68k	59.00
Critic's Choice	159.00
Devpac Ed/Assem/link/debg	66.00
Dissasembler	45.00
GFA basic 3.0	95.00
Inovatools #1	54.00
Lattice C	132.00
Lattice C + +	379.00
Lattice C professional	249.00
Lattice developemnt system 5.0	199.00
Library's source	197.00
Macro assembler	65.00
Metacomco lisp	131.00
Metacomco pascal	95.00
Metacomco shell	40.00
Metascope debugger	65.00
Power windows v2.5	58.00
Pro Basic	124.00
Publishers choice	130.00
Source level debugger	50.00
The power system pecan	93.00
The professional pecan	89.00
The Works Platinum	164.00
True basic	65.00
W. shell	33.00

FONTS

Asha's fonts	57.00
Calligrapher	$63.00
Fancy 3d fonts	52.00
Font set I	22.00
Inter font	76.00
Kara fonts color	50.00
Lion fonts	56.00
Masterpiece fonts	159.00
News letter fonts	29.00
Profonts I Prof	23.00
Profonts II decorative	23.00
Studio font	29.00

HARDWARES

8Up Memory Exp. A2000	$165.00
Accelerator	152.00
Amigen	153.00
Easyl A1000	349.00
Easyl A2000	379.00
Easyl A500	345.00
Expan. 512K A500	159.00
Expansion 1mg A500	409.00
Flicker fixer	495.00
Framegrabber	579.00
Future sound	129.00
Light pen	99.00
Live A2000	349.00
Live framegrabber A1000	245.00
Live framegrabber A500	305.00
MC68881 Math Co-processor	179.00
Multifunction card	75.00
My-T-Mouse	39.00
Perfect sound A1000	69.00
Perfect sound A500/A2000	69.00
Phoenix power supply A500	95.00
Progen	379.00
Super Gen	695.00
Supra modem 2400bd	149.00
WV1410 Panasonic Camera w/lens	210.00

SPREADSHEETS

Analyze! 2.0	$95.00
Haicalc	32.00
Maxiplan 500	95.00
Maxiplan plus	126.00
Super plan	97.00
VIP Professional	65.00

DESKTOP PUBLISHING

Citydesk	$97.00
Citydesk companion	15.00
Citydesk companion II	15.00
Page stream	129.00
Page setter	97.00
Professional Draw	129.00
Professional page	249.00
Publisher plus	69.00
Shakespeare	129.00

ACCOUNTING

The Accountant	$183.00
Best general ledger	77.00
Financial plus	189.00
Invester advantage	63.00
Miamiga ledger	63.00
Micro lawyer	39.00
Easy Ledger	199.00

WORDPROCESSORS

Becker text	$92.00
Excellence!	179.00
Flow idea processors	63.00
Gold spell II	30.00
Kindwords	65.00
LPD writer	75.00
LPD writer unprotected	83.00
Micro text	22.00
Prowrite v2.0	80.00
Reason	249.00
Text pro	50.00
Word perfect	159.00
Wp library	79.00

MONITORS

Amdek multisync 12' mon.	$512.00
Panasonic 8cm515 mon.	249.00
Sieko cm1430 monitor	699.00
Sony multi-scan Monitor	535.00
Zenith 14' Flat screen mon.	720.00
Nec 3D multisync	799.00
Taxan 1000 20" multisync	2899.00

EDUCATION

Adventure of sinbad	32.00
Aesop's fables	32.00
All about America	35.00
Animal kingdom	32.00
Decimal dungeon	32.00
Discovery game math	25.00
Discovery game spell.	25.00
First letters and words	35.00
First shapes	35.00
Fraction action	32.00
Grade manager	59.00
Great states	25.00
Kid Talk	35.00
Kinderama	32.00
Kwik speak spanish	19.00
Learning curve	52.00
Link word French	22.00
Link word German	22.00
Link word Italian	22.00
Link word Russian	22.00
Link word Spanish	22.00
Math talk	35.00
Math talk fraction	35.00
Math wizard	35.00
Perfect score	51.00
Quiz master	51.00
Read & rhyme	32.00
Read-a-rama	32.00
Spell bound	25.00
Speller bee	35.00
Tales from Arabia	32.00
Wordmaster	32.00

PRINTERS

1091i Panasonic printer	$224.00
Alps Allegro 24 PIN	399.00
Epson Apex 80	205.00
NEC LC890 laser PS.	3395.00
Okimate 20 color prt.	145.00
Plug'n print	85.00
Star nx rainbow	259.00
Xerox 4020 ..... ink jet	1295.00
Xerox 4020 starter kit	159.00
HP Paint jet	CALL

1-800-752-0050

In Mass. Call....

1-508-756-6452

SALES AND QUOTES (outside Mass.):
1-800-752-0050

SHIPPING AND TECHNICAL SERVICE:
1-508-756-6452

QUOTE-A-FAX: 1-508-799-9354

- Corporate and volume purchases invited. Call Moe.
- Stock orders placed by 12:00 NOON EST shipped the same day.
- Allow 10 days for personal checks to clear.
- Wire transfer accepted.
- Minimum $5.00 Shipping/handling charge
- Add $3.50 for COD.
- Returns subject to restocking charge
- Software defects-call the Manufacturer
- For faster delivery send cashiers check

SOUND & MUSICS

4-op deluxe	$97.00
Audio master	37.00
Audio master II	67.00
Back songbook	27.00
Copyist II	179.00
D-50	99.00
Deluxe music	69.00
Dr drums	20.00
Dr keys	20.00
Dr T's Keyboard	160.00
Dr. T's Midi recording studio	45.00
Dx heaver	97.00
Dynamic drums	52.00
Dynamic studio	129.00
Future sound A500/A2000	92.00
Hot cool jazz	18.00
Hot licks	32.00
Instant music	32.00
Matrix 6	97.00
Midi Magic	99.00
Mt-32	97.00
Music student	38.00
Pro sound designer	125.00
Promidi studio	129.00
Rock & roll	21.00
Sonix	51.00
Sound sampler	78.00
Studio magic	65.00
Synthia	59.00
Texture	97.00
Utilities 2(mimatics)	43.00

UTILITIES

B.A.D.disk optimizer	$32.00
C.B. Tree	65.00
Celebrity cook book	20.00
Custom screens *	45.00
Cygnused Professional	65.00
Disk 2 disk	33.00
Disk master	33.00
Disk mechanic	59.00
Dos 1.3	22.00
Dos 2 dos	35.00
Doug's math aquarium	52.00
Encore	45.00
Ez backup	33.00
Facc II	22.00
Fine print	33.00
Fleet check	33.00
Flip side	37.00
Gold spell	32.00
Gomf	27.00
Grabbit	19.00
Laser scripts	28.00
Laser up: fonts	26.00
Laser up: plot	33.00
Laser up: print	58.00
Laser up: utilities	26.00
Lex check	33.00
Lv backup	32.00
Multi preferences	20.00
Nag Plus Schedule Assist.	52.00
Pro script	32.00
Project D	32.00
Promis spelling	32.00
Quarterback	45.00
Raw copy 1.3	39.00
Superback	52.00
Sys font *	22.00
Tax plan	22.00
Tdi editor sources	30.00
Tdi examples	15.00
Tdi grid access	30.00
Tdi kermit	19.00
Text ed plus	52.00
V.I.P.	32.00

HOME ACCOUNTING

Desktop budget	$46.00
Money mentor	$65.00
Phaser	65.00
Tax Break	53.00

GRAPHICS & VIDEO

3-Demon	$69.00
Animate 3-D	99.00
Animate 4D	439.00
Animation editor	39.00
Animation effects	32.00
Animation Flipper	32.00
Animation multiplane	58.00
Animation stand	32.00
Animation w/images	89.00
Animator apprentices	185.00
Animotion	65.00
Architechtural design	23.00
Art gallery I	20.00
Art gallery II	20.00
Art pak I	20.00
Art parts 1	20.00
Art parts II	20.00
Award maker plus	32.00
Broadcast Titler	189.00
Butcher	25.00
C light 3d editor	39.00
Calligrapher help	28.00
Chroma Paint	48.00
Color splitters	79.00
Comicsetter	65.00
Deluxe paint II	89.00
Deluxe Paint III	102.00
Deluxe print II	55.00
Deluxe photo lab	102.00
Deluxe production	137.00
Deluxe video II	89.00
Designasaurus	32.00
Digi paint	39.00
Digi paint help	24.00
Digi view	131.00
Director's Toolkit	26.00
Dpaint help	24.00
Exprss paint	65.00
Express paint III	89.00
Forms in flight II	77.00
Future design 3-d	23.00
Graphic studio *	35.00
Human design 3-d	23.00
Icon Paint	59.00
Impact	55.00
Interchange	32.00
Invision	109.00
Lights Camera Action	49.00
Microbot design 3-d	23.00
Modeler 3d	64.00
Movie setter	65.00
Page flipper fx	95.00
Perfect vision	175.00
Photon expansion disk	19.00
Photon paint	65.00
Photon paint 2.0	97.00
Photon paint help	23.00
Photon video cell anim.	97.00
Pixmate	43.00
Print master plus	33.00
Prism	43.00
Pro video plus set I	83.00
Pro video plus set II	83.00
Pro. result using dpaint	35.00
Provideo plus	193.00
Sculpt 3-d	64.00
Silver turbo	129.00
The Director	46.00
Turbo silver	129.00
Tv-show	64.00
Tv-text	64.00
Video effects 3d	121.00
Video scape 3-d	120.00
Video titler	95.00
Zoetrope	91.00

DISKETTES

Fuji 3.5' ds/dd color disks	$19.00
Sony 3.5' ds/dd	19.00
TDK 3.5' ds/dd disks	19.00
Centech 3.5' ds/dd disks	19.00
Centech 5.25' ds/hd disks	29.00

ENTERTAINMENT SOFTWARE

We have them all! Over 300 games in stock. Call for your favorite game, and check our low prices.

Circle 134 on Reader Service card.

SHOWROOM: 22 Front Street, Worcester, MA 01614

Both Populous and SimCity have a few surprises, but none are nasty bugs. In Populous, I occasionally wished for a second, independent computer opponent to keep me looking over my shoulder at critical junctures and prevent outcomes from being too much a sure thing. My only laments about SimCity are its occasional rigidity (roads can curve, but bridges and tunnels can't) and the inability to mix some elements. (Try running a power line under a bridge.) Version 1.1 clears up the multiple drive and partition bugs of the original.

The real joy of these programs is the interlocking relationships. Sure, you're a creator, but even more a facilitator, influencer and stage-setter for little computer people who act on your wishes in their own time and fashion. Of the two, I prefer the more intimate urban controls of SimCity to the sweeping omnipotence of Populous. *(Populous: $49.95, Electronic Arts, 1820 Gateway Dr., San Mateo, CA 94404, 415/571-7171, no special requirements. SimCity: $44.95, Maxis Software, distributed by Broderbund Software, 17 Paul Dr., San Rafael, CA 94903-2101, 800/521-6263, 415/492-3500, one megabyte required.)*

WAR IN MIDDLE EARTH

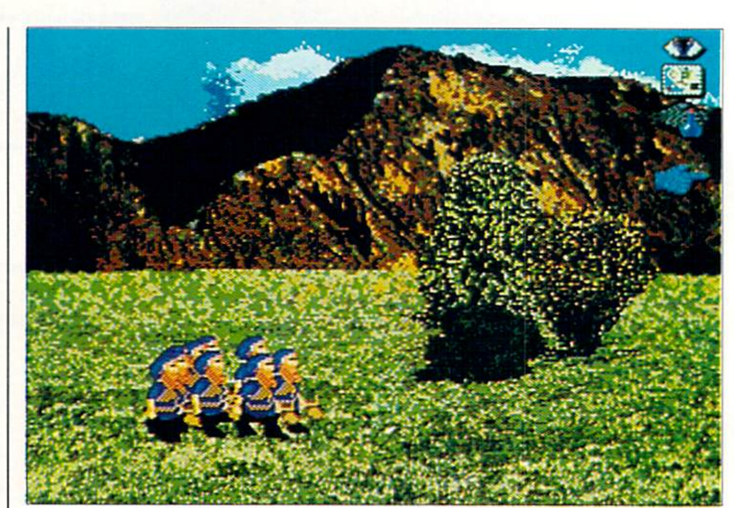
By Neil and David Randall

WE THOUGHT WAR in Middle Earth would be the ultimate Tolkien game, combining the best elements of the book with the most intriguing aspects of strategic war games—then we started playing. (By all means, read the manual first.)

The game captures the feel of the different stages of the Hobbits' journey to Mount Doom. The dreaded Nazgul, even though you can discern their location, are fast and deadly. The trip from Hobbiton to Rivendell is frightening, as it is in the book. Detouring to find needed objects and treasures increases the Nazguls' chances of detecting you and thus heightens the immediacy of the race. While you can change the game speed (Normal, Hasty, and Very Hasty), everybody's speed does not change by a common ratio. When trying to evade the Black Riders, changing from Normal to Hasty increases the Nazguls' chances of finding you. If you leave the speed on Normal, however, the game slows to a crawl.

To move, you order the characters to a specific place and the computer picks the best route (you can alter it if you wish). Movement commands can only be executed on the Campaign level, which shows a detailed, beautifully scrolling map of the immediate region. Most of the game is played on this level, but you'll want to spend some time watching the colorful animations on Animation level, which uses strong graphics (albeit some strange depictions of Tolkien's characters) and interesting sound effects.

When you meet characters, be prepared to work for your information. You cannot communicate with most of them, but when you can, the character will give you clues. A good feature, but they stay on the screen only briefly. If you click ►



Help the Hobbits.

the mouse, the information is gone, and not retrievable.

A more significant problem is the game's crashes. Animation screens are frequently obliterated by a series of data numbers, and when trying to move multiple forces we usually had complete software lockup.

Most irksome to Tolkien disciples, the game misses the point. *The Lord of the Rings* was about characters, not about warfare. We liked the combination of characters and armies in the game, but feel that the characters were given short shrift. Somehow, Tolkien's great humanity was lost in a sea of only partially appropriate details. *($49.99, Melbourne House, 711 West 17th St., Unit G9, Costa Mesa, CA 92627, 714/631-1001. No special requirements.)*

KIKUGI

By Shawn Laflamme

KIKUGI IS AN ancient Japanese game of concentration and strategy, brought to the Amiga by Image Tech. Unlike other current Amiga games with Japanese themes, this one is for the thinker rather than the samurai.

The disk includes 15 different game boards, all of which are variations on the same theme. The Original board contains 32 marbles arranged in a cross pattern with one empty space in the center. You jump one marble over another into an empty space, removing the one that you jumped. The idea is to remove all but the last marble, which should be left in the center position on the board. If you succeed, you are rewarded with a fortune cookie.

All of this sounds very simple until you attempt to do it. You will quickly discover that you need to develop some sort of strategy for removing the pieces; slow down and think ahead as many moves as you can. Each move becomes more critical as you go along.

If you find that you need some practice, you can make a humble retreat to the Beginner's board, which has only 19 pieces to worry about. The other 13 boards on the disk ►

The BEST AMIGA DISKS

Quality User Supported Software works with all Amiga systems

$7 Each — Buy 1-4 Disks

$6 Each — Buy 5-14 Disks

$5 Each — Buy 15 or more Disks

So easy to Use

- No Computer Experience Necessary
- Instructions for each Order
- FREE Phone Support

So Easy to Order

- FREE Membership
- FREE 800-# for Orders
- FREE Same-day Shipping
- UPS 2nd Day Air Service when you need it Now!
- FREE Catalog
- Your Satisfaction Guaranteed

THE BEST OF THE REST

BUSINESS/HOME

☐ **#116 Business II** - VC-Spreadsheet, HP-10c calculator, and more

☐ **#117 Business III** - DataBase, a bunch of great new fonts, RSLClock-great clock utility, AmigaSpell.

☐ **#152 Mail Manager** - Store names and addresses of friends, clients, members, etc. Has sorting and printing functions.

LANGUAGES/COMMUNICATIONS

☐ **#9 FORTH** - Two versions of the FORTH programming language.

☐ **#90 Modem Madness!** - Terminals include StarTerm, ATerm, and Kermit. Telecommunication utilities such as Archive are also here. Other types of programs and utilities are also included in the price of admission.

UTILITIES

☐ **#60 AmigaBasic** - Two programs that are truly of commercial quality, Cell-Animate and Graphit. Some Deluxe Paint picture files are also included.

☐ **#97 Tutorial Disk1** - A disk full of information and programs to instruct Amiga Programmers and users. Several C & ASM source files are included.

☐ **#98 Tutorial Disk2** - More of the best of Amiga Information.

☐ **#129 Amiga Utilities II** - A hard disk backup; Target-sounds a gunshot whenever the left mouse button is pressed; Dpaint Tutor; WinSize-change window size from CLI easily, and lots more.

☐ **#132 Videomaker Utilities** - This disk is packed with utilities to make your desktop videos easier to produce and more professional looking.

☐ **#133 DOS Helper** - Designed to help you with the AmigaDOS commands. Supports multitasking.

APPLICATIONS

☐ **#135 Applications II** - Long Movie-plays several Iff pictures, creating animation. QuickBase-a mail manager DBase. Persmait-a DataBase for keeping records.

SOUND/MUSIC

☐ **#18 Future Sound Demo** - Another great sound demo of digitized sound. Includes the wicked witch of OZ, breaking dishes, sea gulls, car crash, ducks, others.

SLIDE SHOWS

☐ **#1 Norman Rockwell** - 17 beautiful digitized Rockwell paintings in this self-running slideshow presentation.

☐ **#108B Juggler** - Famous demo that shows the beautiful graphics of the Amiga

☐ **#120 Pictures6** - Great Iff and Ham pictures that can be displayed from Workbench with their own icons.

GAMES

☐ **#38 Basic GrabBag2** - Around 25 programs of various types. Many of these are must-haves. At less than $.20 each, you can't go wrong!

☐ **#44 Games3** - More great games including Life, Vegas Slot Machine, Reversi, others.

☐ **#52 Basic Games** - Tons of ABasic games - discover some treasures!

☐ **#61 ABasic GrabBag** - Only about 100 of all types!!!!!

☐ **#102 Sinking Island** - Return to Sinking Island is an excellent adventure game. Well worth the price - hours of enjoyment!!! (By Terry Fike)

☐ **#114 Potpourri X** - Othello, A key-shortcut program for AmigaDos. Various new tools, automatic printer-driver generator, much more.

☐ **#118 Great Graphic Games** - Includes Missle Command, 3-D Triclops, Cosmo-asteroids clone, BrakeOut, Yatzee, Hack and more.

☐ **#121 Backgammon** - A great game from David Addison.

☐ **#122 Solitaire** - Two versions by David Addison.

☐ **#123 Cribbage** - Take on the computer.

☐ **#124 Milestone** - A great computer version of Miles Bournes by the author of Monopoly for the Amiga, David Addison.

☐ **#125 Othello** - A great 3-D version of this popular game.

☐ **#127 Wheel of Fortune** - Everythingbut Vanna! Great graphics and sound (even speech).

☐ **#137 Blackjack** - A full-featured game which allows pair-splitting, double-down, etc.

☐ **#148 Boulder Dash** - Very popular game with excellent graphics and has several challenging levels.

☐ **#153 Tunnel Vision** - A fantastic 3-D game with excellent sound, speech, and graphics.

☐ **#154 MAXIT** - A fun strategy game that you can play against a human or computer opponent.

☐ **#155 Battleship** - Play against the computer. Has great sounds like missiles and explosions.

GRAPHICS

☐ **#119 mCAD** - A full-featured computer-aided design program.

☐ **#136 Graphics2** - Border Set-useful for desktop publishing and video, making cards, coupons or menus, and your own artwork.

ANIMATIONS

☐ **#144 Christmas Animations** - 10 beautiful scenes and graphics with Fantastic sound.

☐ **#145 Animations 3** - More Great Animations. 3 very good demos plus 3 workbench pictures and Blobs.

THE TOP 10

☐ **#23 Monopoly** - Excellent color and graphics in this adaption of the famous board game. Play against computer opponents. This program is definitely of commercial quality - a must! Requires 512K.

☐ **#27 Amoeba Invaders** - This fantastic game plays just like the original arcade classic, Space Invaders, but with enhanced color and digitized sound. You'll find more great games on this disk.

☐ **#128 Space Games** - Cosmoroids (like asteroids) and Gravity Wars highlight this disk just full of games.

☐ **#131 PacMan '87** - Better than the original. Great graphics, sound, and options. Keeps a top-10 list. May be our most popular disk.

☐ **#139 Bull Run** - Great Civil War strategy game. Disk also includes a small Data Base, Reminder, Grocery Construction Set, Will Kit, Label Maker programs.

☐ **#142 Q-Bert** - Fashioned from the popular Q-Bert game. Good graphics. Other Programs include MakeLabel, Nutty 9 game, Softball Status program, Hustle!

☐ **#77 Instruments** - Turn your keyboard into 25 different musical instruments.

☐ **#37 Business Programs 1** - The programs include an address book, an amortization program, talking mail manager, label printer, and much more.

☐ **#140 Virus Killer** - End the worry of having the virus on your disks. Excellent utility program.

☐ **#146 Calendar** - A very good personal calender! For special events, bill-tracking, etc.

For SUPPPORT or INFORMATION call (503) 826-7679

NEW ADDITIONS

☐ **#158 Sinking Island II (TWO Disk Set!) By Terry Fike** - Great text graphic adventure. 4 map scenes, underground chambers and much more.

☐ **#160 Pilot** - Learn all you need to know about Alaska with this pilot demo.

☐ **#161 Sorry** - Like the board game. Also includes bully and amazing.

☐ **#162 Video Poker** - All the fun of Vegas without the risk!

☐ **#163 Money & Trix** - Grab the money, avoid the tax collector. Also Trix, an arcade like game.

☐ **#164 Bank'in** - By Hal Carter, Keep your account in perfect balance.

☐ **#165 Wheel with Vanna** - Play against two computer opponents. The game with everything, including Vanna.

☐ **#166 HEdit** - A text editor. Try this one, you'll never use Ed again.

☐ **#167 Public Domain Catalog** - By Hal Carter, Keep track of all your disks.

☐ **#168 Grocery List** - Complete itemized printout of all your grocery items.

☐ **#169 Ledger** - Track income and expenditures. Great for small businesses and clubs.

☐ **#171 Escape from Jovi** - Escape from underground cave system of Jupiter.

☐ **#173 Mastermind** - Break the hidden code. A game for people who like a challange.

☐ **#174 1 or 5 Stay Alive** - A dice game for the daring, Don't get too greedy or you'll lose it all.

☐ **#175 ART** - Another great graphic disk. Volcano with burning lava. Ocean scene (sunrise to sunset)

☐ **#176 Galactic Worm** - Great arcade maze like game. Also super Brickout.

☐ **#177 Kamikazi Chess** - Lose all your pieces to win!

Name ______________________

Address ______________________

City ______________ State ____ Zip ______

Phone (______) ______________________

Visa/MC ______-______-______-______

Sig. ______________________

Exp. Date ______________ ☐ Send Catalog

Disks Ordered ______ × ______ $______

☐ SHIPPING Free U.S. $______
Canada - 25¢ per disk Foreign - 50¢ per disk

☐ COD (U.S. ONLY) $______
(add $4 if you require COD)

☐ U.P.S. 2nd Day Air (Add $3) $______

TOTAL $______

☐ Check/MO ☐ Visa/MC ☐ COD

Software Excitement!

P.O. Box 5069 • Central Point, OR 97502

VISA **ORDER TODAY** MasterCard

1-800-444-5457

offer some interesting variations: Classic Marble has 104 pieces on a marble board; Sea Shells gives you 28 shells arranged on a beach; Short Circuit gives you a taste of contemporary Japan with 36 chips arranged on a circuit board; Insanity has 332 pieces. Other boards mercifully allow diagonal moves.

Options allow you to back up one move or preview all possible moves; the Meditate option gives you a rest and lets you review your jumps. You can play a solitaire or two-player game. You can the Insanity board or the Meditate option to load on a 512K A1000.

Kikugi has colorful, Amiga-quality graphics. It has stereo digitized sound effects. It has 15 game boards. It's challenging. But Image Tech has made much of little here. All you're really doing is jumping marbles. You can buy games that will let you fly a helicopter, pitch to Babe Ruth, conquer a galaxy, or save a city. Kikugi doesn't have what it takes to keep most people intrigued for very long. Besides, these are frustrating little games.



Hop, skip, and jump to win.

also watch the computer play itself, which is a rather silly option because the computer plays worse than most humans, so you won't glean any useful strategy hints from watching it.

Image Tech recommends a minimum of 512K to run the program, but I couldn't get Unless you have the patience and concentration of a Shinto priest, you are probably going to lose very often. And he who often loses grows impatient and loads another game. *($39.95, Image Tech, 9276 Adelphi Rd., Suite 102, Adelphi, MD 20783-2029, 301/439-1151. No special requirements.)*

SPEEDBALL

By Peter Olafson

WHAM! SPEEDBALL IS the essence of WHAM.

Speedball is a sport of the 21st century—a synthesis of hockey and handball played in a metal-walled arena with a metal ball by teams of five metal-armored players. The layout is familiar: a central ball ►



CHRISTMAS SPECIALS!

STOCKING STUFFERS UNDER $30

Falcon F-16	29.09
Populous	29.09
Sim City	29.09
Dungeon Master	29.09
Marble Madness	29.09
Robocop	29.09
Sonix SoundTrax I & II (ea.)	12.50
or 2 for	24.00
Express Copy	28.00
Interchange	29.09
Fonts & Borders	21.25
Space Math	27.07
Algebra I	29.09
Fraction Action	29.99

STOCKING STUFFERS UNDER $20

Doug's Color Commander	18.99
Dinosaur Discovery Data Disks	11.00
Talking Coloring Book	17.25
Lexcheck	18.99
Art Gallery Disk	18.99
Interchange Objects #1	13.00
Zuma Fonts Vol. 1-4 (ea.)	19.99
4-in-One Games	18.99
Arkanoid	18.50
Bridge 5.0	19.99
Hole-In-One Golf	19.99
Ports of Call	15.99
TeleGames	19.99
California Challenge	13.84

ANIMATION & TITLING

3-Demon	69.47
Animate 3D	104.22
Animator w/Images	42.00
Animator: Apprentice	182.00
Animator: Jr.	54.91
Broadcast Titler	193.00
Deluxe Video 1.2	90.32
Director, The	48.62
Easy Titler	31.88
Fantavision	41.67
Forms in Flight II	83.37
Movie Setter	69.47
Page Flipper Plus F/X	102.00
Pro Video Plus (Gold)	193.00
Sculpt-Animate 4D	391.00
Sculpt-Animate Jr.	104.00
TV*Text	55.00
VideoScape 3D	109.00
Zoetrope	88.00

BUSINESS & HOME MANAGEMENT

2+2 Home Management	69.47
Accountant, The	186.50
Acquisition	193.00
Analyze 2.0	69.47
Excellence	159.00
File II	69.47
Financial Plus	193.00
Haicalc	41.67
Investor's Advantage	64.47
Logistix	103.56
Maxiplan 500	93.25
Microfiche Filer Plus	115.99
Money Mentor	59.00
Organize	55.57
Paymaster Plus	104.22
Phasar 3.0	62.29
Rollabase Plus	62.52
Superbase Personal II	98.00
Superbase Prof. 2.0	243.22
Superplan	98.00
Tax Break	55.57
VIP Professional	104.22
Works Platinum, The	205.69
Write N File	69.47

CAD & MODELING

Aegis Draw	50.00
Aegis Draw 2000	169.00
Design 3D	69.47
HomeBuilders CAD	138.31
IntroCAD	51.00
Logic Works 2.0	189.00
Modeler 3D	69.47
Sculpt 3DXL	125.07
Ultra CAD	173.72

EDUCATIONAL

AB Zoo	24.00
All About America	38.95
Birds & Bees ea.	41.67
Calculus	31.88
Chicken Little	18.82
Decimal Dungeon	32.25
Designasaurus	32.25
Dinosaur Discovery Kit	25.77
Discrete Math	31.88
Doug's Math Aquarium	55.57
First Letters & Words	33.00
First Shapes	33.00
Fraction Action	32.25
Galileo 2.0	45.00
Ghostly Grammar	31.88
Grade Manager	58.95
Great States II	25.00
Kidtalk	25.77
Kinderama	32.25
Learning Curve	51.95
Linkword Languages ea.	20.50
Little Red Hen	20.82
Match-It	25.99
Math Talk/Fractions ea.	26.99
Math-A-Mation	64.95
Mavis Beacon Teaches Typing	31.24
Pre Calculus	31.88
Quiz Master	49.90
Read-A-Rama	31.88
Social Studies	13.87
Space Math	29.99
Spellbound	25.50
Talking Animator	39.00
Three Little Pigs	20.82
Trigonometry	36.88
Word Master	32.50
World Atlas	41.67

FONTS & CLIP ART

Arch. Design Disk-Sculpt/VScape	23.00
Asha's CalligraFonts	62.52
Broadway Font	34.75
Business Set	55.60
CAD Parts for IntroCAD/Draw	48.65
Clip Art #1-8 ea.	13.84
ComicSetter-Funny/Scifi/Heros ea.	23.00
Design Disks-Sculpt/VScape ea.	23.00
Designer Databases-Bus./Home ea.	48.62
Future Design Disk-Sculpt/VScape ea.	23.00
Helvetica Font	34.75
Homebuilders ea.	56.30
Human Design Disk-Sculpt/VScape ea.	23.00
Kara Fonts-Headlines	51.00
Kara Fonts-Headlines 2/Subheads ea.	48.62
Lion's CalligraFonts	41.67
NTF Fonts-Comic/Fancy/Roman/Sans ea.	55.57
P.S. Dot Matrix Font Disk 1-5 ea.	25.77
P.S. Postscript Font Disk A-C ea.	25.77
ProFonts Vol. I/II ea.	23.00
Studio Fonts	30.00
Times Roman Font	34.75

GAMES

4th and Inches	29.00
Aaargh!	23.00
Adventures of Sinbad	32.00
Afterburner	32.99
Alien Syndrome	33.00
Android Decision	24.33
Andromeda Mission	25.75
Apollo 18	31.24
Arctic Fox	25.77
Art of Chess	22.29



THE *ULTIMATE PAINT* PROGRAM $64.00

Autoduel	27.00
Axe of Rage	31.88
Baal	23.00
Bad Dudes	31.24
Balance of Power II 1990	31.88
Ballyhoo	25.77
Bards Tale	35.99
Bards Tale II, Destiny Knight	41.50
Batman	31.00
Battle Chess	32.25
BattleDroidz	23.00
Battletech	32.50
Berzerk 3	23.00
Better Dead Than Alien	21.89
Black Jack Academy	25.77
Black Shadow	22.29
Blitzkrieg Ardennes 1mb	38.95
Borrowed Time	31.24
Bowling	13.84
Breach	25.77
Bubble Bobble	22.77
California Games	25.77
Capone	25.77
Captain Blood	32.32
Carrier Command	30.24
Casino Fever	25.77
Champ Baseball/Golf ea.	25.77
Champ Basketball/Football ea.	31.24
Charon 5	25.77
Chessmaster 2000	32.25
Chrono-Quest	33.72
City Defense	13.84
Combat Course	25.77
Craps Academy	25.77
Crash Garrett	25.77
Crazy Cars	25.77
Creature	25.77
Crossword Creator	31.88
Cutthroats	10.34
Cyber Complex	23.00
Deathbringer	25.77
Deep Space	20.82
Defcon 5	25.77
Defender of the Crown	31.88
Deja Vu I/II ea.	31.88
Descartes	23.00
Destroyer	25.77
Devon Aire Hidden Dia	31.88
Dominos	17.34
Double Dribble	25.77
Downhill Challenge	23.00
Dragon's Lair	41.67
Dream Zone	32.00
Earl Weaver Baseball	31.88
EbonStar	25.77
Echelon	31.24
Elite	31.24
Empire	31.88
F-15 Strike Eagle	25.77
F/A-18 Interceptor	31.88
Faery Tale Adventure	31.88
Federation	31.88
Ferrari Formula One	31.88
Feud	13.87
Final Assault	25.77
Final Mission	23.00
Fire and Forget	25.77
Fire Blaster	6.92
Fire Power	17.34
Fire Zone	23.00
Flight Path 737	17.34
Flight Sim.-Scenery Disks ea.	17.34
Flight Simulator II	31.88
Fortress Underground	13.87
Foundation's Waste	23.00
Fright Night	25.77
Galactic Conquerer	31.24
Galactic Invasion	17.34
Galaxy Fight	17.34
Ganymede	20.82
Gauntlet	31.88
GBA Basketball-2 on 2	31.24
Gee Bee Air Rally	25.77
GFL Champ Football	13.87
Global Commander	25.77
Gnome Ranger	13.87
GO for the Amiga	25.77
Gold Medal Volleyball	25.77
Gold of the Realm	25.77
Gold Rush	25.77
Golden Pyramid, The	13.87
Goldrunner I/II ea.	25.77
Grand Slam Tennis	31.88
Grid Start	17.34
Gridiron	41.67
Guild of Thieves, The	31.24
Gunship	36.97
Hacker II	25.77
Harrier Combat Sim.	31.88
Heavy Metal Land Comb.	31.24
Heroes of the Lance	25.77
Hitchhiker's Guide	20.82
Hollywood Hijinx	25.77
Hostage	31.24
Hunt for Red October	31.88
Hybris	25.77
Ice Hockey	31.88
Ikari Warrior	31.24
Indiana Jones Temp Dm	25.77
Indoor Sports	31.88
International Soccer	25.00
Into the Eagle's Nest	25.77
Jack Nicklaus' Golf	31.88
Jet	31.88
Jinxter	25.77
Joker Poker	24.72
Journey to Center Earth	25.77
Kampfgruppe	41.67
Karate Kid II	25.77
Karting Grandprix	17.34
Kikugi	18.00
King of Chicago	31.88
King's Quest I/II ea.	31.88
Lancelot	28.00
Land of Legends	31.88
Leather Godesses Phobos	10.34
LeatherNeck	25.77
Leisure Suit Larry ea.	25.77
Lord of the Rising Sun	31.88
Lottery Magic	17.34
Lurking Horror	25.77
Mad Libs	13.84
Magic Johnson's Bktball	31.88
Maniax	17.34
Master Ninja: Shad. War.	31.00
Mean 18	31.24
Mega Pinball	25.77
Metal Gear	25.77
Mike the Magic Dragon	17.34
Military Simulator	31.88
Mind Walker	31.88
Mindroll	20.82
Mind Shadow	31.24
Moebius	41.67
Neuromancer	31.88
New York Subway	25.77
Ninja Mission	13.87
Obsession	20.82
Offshore Warrior	25.77
Ogre	20.82
One-on-One	13.87
Oo-Topos	13.87
Out Run	31.88
P.O.W.	25.77
Paladin	25.77
Parachutes at Kanev	25.77
Phantasie	25.77
Phantasm	23.00
Pinball Wizard	23.00
Pioneer Plague	25.77
Platoon	31.24
Police Quest I	31.88
Populous	31.88
Power At Sea	31.24
Powerdrome	25.77
Pub Games	23.00
Q-Ball	20.82
Qix	25.77
Questron II	31.88
Racter	31.24
Realm of the Warlock	23.00
Renegade	25.00
Return to Atlantis	32.00
Road Raider	31.88
Roadwar 2000	25.77
Robbeary	17.00
Rocket Ranger	32.00
Roger Rabbit	31.24
Rogue	25.77
Romantic Enc./Dome	25.77
Rush'N Attack	25.77
S.D.I.	31.88
Sargon III	31.88
Shadowgate	31.88
Shanghai	25.77
Sherlock: Crown Jewels	25.77
Shogun	41.67
Silent Service	25.77
Sinbad	31.88
Skyblaster	23.00
Skychase	25.77
Skyfox II: Cygnus Conf.	31.88
Slapshot!	41.67
Slaygon	25.77
Snake Pit	23.00
Soccer	25.77
Solitair	25.77
Sorcerer	10.39
Space Battle	13.87
Space Harrier	31.88
Space Quest I/II/III ea.	31.88
Space School Simulator	23.00
Space Shuttle II	25.77
Space Station Oblivion	32.00
Speedball	25.77

Call on Sunday–ask about SUNDAY SPECIALS!

Spellbreaker	10.39
Sporting News Baseball	25.77
Star Wars	25.77
Starglider II	31.24
Stellar Conflict	25.77
Stir Crazy	23.00
Street Cat	25.77
Street Sports Baseball/Basketball/Soccer ea.	25.77
Super Cars	13.87
Superstar Ice Hockey	31.88
Suspect	10.39
Suspended	10.39
Sword of Sodan	34.27
Tales Arab. Knights	31.88
Tanglewood	25.77
Targis	25.77
Tass Times	25.77
Tele Epic	26.00
Tele War II	25.77
Temple of Apshai Trilogy	13.87
Tenth Frame	25.77
Tera Questron	25.77
Terrorpods	25.77
Test Drive I/II ea.	31.24
Tetris	23.00
Thai Boxing	10.39
Thexder	23.00
Three Stooges, The	31.88
Thud-Ridge	25.77
Thunderblade	31.88
Time Bandit	25.00
Torch 2081	20.82
Total Eclipse	25.77
Trinity	10.39
Turbo	17.34
TV Sports Football	31.88
Twilight Zone	25.77
Ultima III/IV	25.77
Undersea Commando	31.88
Uninvited	31.88
Universal Military Sim.	31.88
Vampire's Empire	31.24
Video Vegas	23.00
Viper Patrol	10.42
Vyper	20.82
War In Middle Earth	31.88
Warlock	23.00
Wayne Gretzky Hockey	32.00
Winter Edition Games	25.77
Wizard Wars	25.77
World Class Leader Brd	25.77
World Games	25.77
Zak McKracken	31.24
Zero Gravity	20.82
Zork Trilogy	48.62
Zynaps	23.00

GRAPHICS & PAINT

Amiga Graphics Start Kit	72.00
Analytic Art	37.25
Award Maker-Educational/Sports ea.	20.87
Award Maker Plus	31.88
B Paint	25.77
C-Light	38.65
Caligari Jr.	138.31
Deluxe Paint III	99.00
Deluxe Photo Lab	104.22
Deluxe Productions	139.84
Desktop Artist	18.82
Digi-View Gold	138.97
Express Paint 3.0	90.27
Fine Print	31.88
Graphics Studio	41.67
My Paint	31.88
PageRender 3D	94.17
Photon Paint II	98.00
Pixmate	45.62
Turbo Silver 3.0	128.00
TV*Show	63.00
Ultra Design	277.97
Video Effects 3D	138.97

MUSIC

ADrum	51.57
AudioMaster II	62.00
C-Zar	126.31
Deluxe Music Const. Set	69.47
Dr. T's ALL	CA.LL
Dynamic Drums	55.57
Dynamic Studio	138.97
Encore	45.00
Hot & Cool Jazz	20.28
It's Only Rock & Roll	20.82
MIDI Magic	97.22
Music Studio 2.0	55.57
Music X	208.47
Pro MIDI Studio	124.25
Pro Sound Designer	111.17
Sonix	55.57
Soundlab Amiga	202.00
SoundQuest-All	CA.LL
SoundScape Utilities I	34.00
SoundScape Utilities II	42.00
Synthia	59.50
Texture	138.97



Christmas Special! *"Getting Started with Your Amiga"*

The *Video Tape* all about your Amiga!
CLI • Workbench • Peripherals • Viruses • And much more!
Special introductory price — $29.95 (VHS only)

PAGESETTING

City Desk 1.2	104.22
Flow	63.00
PageSetter	104.22
Professional Page 1.2	225.00
Publisher's Choice	129.00
Publishing Partner Pro.	138.97
Shakespeare	146.38

PROGRAMMING

AC/Basic	134.00
AC/Fortran	198.00
AC/Basic	134.00
Amiga C	103.56
ARexx	31.88
Assembler Language	69.47
Assempro	69.47
Aztec-C Professional	128.00
Basic Professional Pak	138.97
C Language	69.47
Compiler Code, The	55.57
Developer's Toolkit	31.88
Expert System Kit	48.62
Fortran Pro. Pak	138.97
GFA Basic	90.00
HiSoft Basic	103.17
J Forth	69.47
Lattice C ++	297.00
Lattice C 5.0	197.00
Lattice C Compiler	340.00
Lisp	138.97
Macro Assembler	69.47
MenuMaker	31.88
Metascope Debugger	59.00
Modula-2 Compiler	208.47
Modula-2 Devel.	103.56
Multi-Forth	61.86
Pas2Mod	69.47
Program Caller	41.67
Prog. Analysis Toolkit	41.67
Runtime Package	69.47
Sort Utility	41.67
Source Level Debugger	49.13
Symbolic Debugger	41.67
T Shell	28.70
True Basic	69.47
Truestat	55.57
UCSD Pascal	69.47
UCSD Pascal Prof. Pak	138.97
Ultra DOS	38.00
WShell	31.88

Call for our *FREE* Hardware/Software CATALOG!

TELECOM

Amigaterm	20.82
Atredes BBS	97.22
BBS-PC	65.00
Dr. Term Professional	69.47
On-Line Platinum	64.00

UTILITIES

A-Max Emulator	139.00
AmigaDOS Express	20.82
AmigaDOS Toolbox	41.67
Anti-Virus	25.77
B.A.D. Accelerator	31.88
Benchmark IFF Library	64.47
Butcher 2.0	24.00
C.A.P.E. 68K Assem. 2.0	58.52
CLI Mate	25.77
Custom Screens	43.00
Cygnus Ed Pro	64.47
DevPak Amiga 2.0	69.47
Disk Mechanic	58.00
Disk Recovery Toolkit	25.77
DiskWick	31.88
DOS-2-DOS	37.23
Enhancer 1.2	10.39
Extend	25.00
EZ Backup	31.88
F.I.F. Module	13.87
FACC II	21.00
Gizmoz 2.0	48.62
Gomf 3.0	27.77
Grabbit	20.82
Inova Tools I/II ea.	55.57
JetSet Laser Utility 1.3	27.80
Key to C	22.00
Laser Up! Plot 1.2	30.58
Laser Up! Print 1.2	68.81
Laser Up! Util. Vol. 1	30.58
Lazerscript	28.00
Lint	63.11
Magellan 2.0	117.99
Marauder II	25.77
Mirror Disk Copier	31.88
Nag Plus 3.0	49.57
Powerwindows 2.5	58.52
PrintMaster Plus	31.00
Project D	31.88
Quarterback	44.00
Raw Copy 1.3	38.67
Superback	51.57
Ultra DOS Utilities 1	37.00
Zing!	55.57
Zing! Keys	31.88

WORD PROCESSING

Beckertext	104.22
Calligrapher 1.05	90.32
Critic's Choice (3 in 1)	173.72
Dynamic Word	104.22
Gold Spell II	31.24
Kindwords 2.0	64.47
Pen Pal	104.22
ProScript	31.88
ProWrite 2.0	77.00
Scribble! Platinum	104.22
Text Pro	55.57
TextEd Plus	55.57
Word Perfect 4.1	179.00
Write 'n File	69.47
Zing! Spell	55.57

We'll meet *or beat* any advertised price in this issue of this magazine!

1-800-525-7DAY

Corp. Office (818) 889-3633 • FAX (818) 889-5175

WE PAY SHIPPING:* All orders delivered to addresses within the continental United States with a purchase value of $100 or more are shipped FREE via UPS regular service. Overnight, 2-day service and other special shipping is available. Ask for details. No surcharge for Visa or MasterCard orders, 3% for American Express. C.O.D. add $3.00 per product. C.O.D. orders are for cash, cashier's check or money order only. California residents add 6.5% sales tax.

OUR POLICY: We offer over 1,000 products for the Amiga. If you don't see it listed, please ask! Call around, then call us!

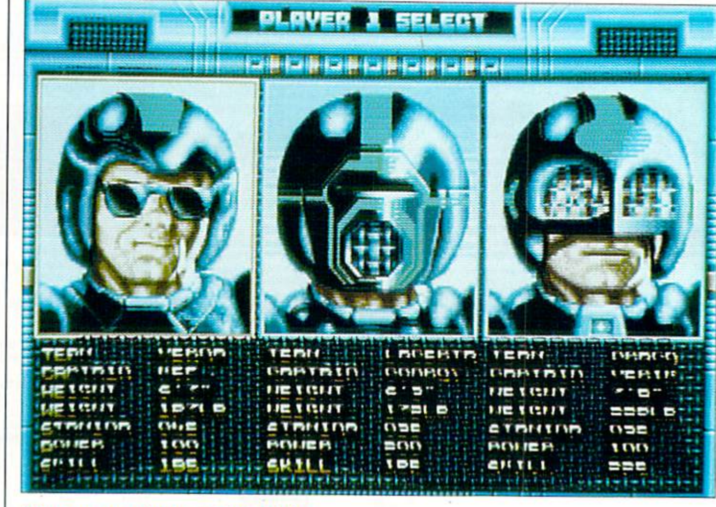
- We accept Visa and Mastercard with no surcharge, American Express add 3%. Your credit card is not charged until we ship your order. If we must ship a partial order, we'll pay the UPS ground shipping costs to complete the order.
- Upon receipt and approval, personal and company checks may clear within 3 business days on prepaid mail orders. Call for a free hardware and software catalog.
- Orders are processed and shipped the same day whenever possible.
- International shipping—NO PROBLEM!
- Exchanges and returns—NO PROBLEM!
- *Call:* 1-800-525-7DAY U.S. and California.
- *Fax:* (818) 889-5175
- *Corporate Offices:* (818) 889-3633.

7-Day Software tries to carry only quality products. No warranties or representations as to the quality or useability of the products are made. It is the responsibility of the manufacturer to provide support for its products. *7-Day Software* will gladly replace damaged merchandise at no charge. Call for details. Prices subject to change without notice.

WE SHIP BY: FEDERAL EXPRESS AND UPS

7-DAY ACCEPTS PAYMENT BY: VISA  

launcher (in lieu of a puck dropping ref), goals at either end of the playfield, and high walls for ricochets. The ball looms up on the screen when it is airborne. You can tackle, too. Against the more powerful computer opponents, however, hanging on to the ball is a challenge. You can play rious, you might not even notice the floating tiles. Some are money, which you can spend after the final whistle to improve your stats, tamper with your opponent's or bribe officials. (Officials in future sports are not very honest.) Some are power tiles that you can use immediately for tackling, pro-



Choose your team and captain.

against a friend or the computer in elimination tournaments or leagues of up to 100 weeks.

A few elements step in to prevent this from being a futuristic hockey-handball hybrid or a member of the Sports in Hell series. One is the warp tunnel in the arena's side walls, which permits a ball thrown in from one side to come out the other. Less helpful are the bounce domes that repel the ball and appear in various configurations. Often the action is so fast and fu-

tection against tackling, freezing the opponent, and so on.

About the only drawback is that the digitized sound of cheering on my occasional goals comes through muffled sometimes. I'm no great fan of sports invented for the computer, but Speedball, an English import, is a pip. What else can I say but WHAM, WHAM, WHAM! *($39.95, Spotlight Software, distributed by Cinemaware, 4165 Thousand Oaks Blvd., Westlake Village, CA 91362, 805/495-6515. Joystick required.)*

GRAND PRIX CIRCUIT

By Peter Olafson

THE ONLY THING I've consistently been able to drive on my Amiga is myself crazy—until Grand Prix Circuit, which includes many of the better aspects of previous driving games and eliminates many of their potholes. The biggest ob- ►

jections I have so far are the long load times and the black-on-black steering wheel on one of the three available cars.

Grand Prix successfully adapts the technology of Accolade's earlier attempts, Test Drive and Test Drive II: The Duel, to the closed circuit. The dashboards' graphics aren't quite as detailed, but the set-up screens have the same glossy look. The screen changes have the same windshield wiper swish. Then, there are the tunnels. Coming out of a tunnel in the middle of the pack is better experienced than described. I only wish there were an echo.

One of the friendlier racing programs around, Grand Prix has no mysterious requester boxes but plenty of options. I especially like the map that indicates your progress and how sharp the approaching turn will be. Pit stops, mercifully, are limited to wheel replacement. You can choose among five difficulty levels from rookie (automatic shifting, sometimes nudgeable cars) to pro (you have to work to make it out of the straight-aways) and three types of racing from practice to the full eight-race circuit.

The designers paid great attention to detail. When you blow your engine, you hear a convincing bang and watch billowing black smoke in your rearview mirrors. When you nudge the car in front of you too hard, your hood crumples and he spins out in a full 360. The engine sound is even a little throatier than usual.

The slim manual is thorough, but does not provide much game color. It says the other nine drivers have their own styles, but profiles would be more helpful than the best-to-worst chart.

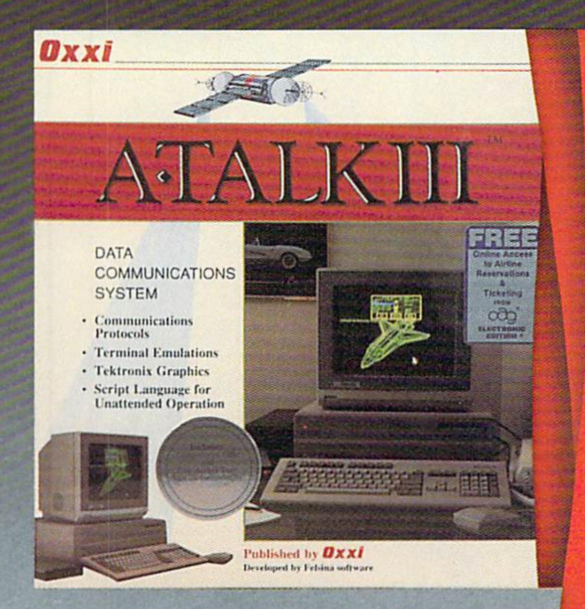
I finished second in my first race (Brazil), but haven't managed any better than a close sixth on the second (Monaco). At least this time I'm just driving, and not driving myself crazy. *($49.95, Accolade, 550 S. Winchester Blvd., Suite 200, San Jose, CA 95128, 408/985-1700. Joystick required.)* ■

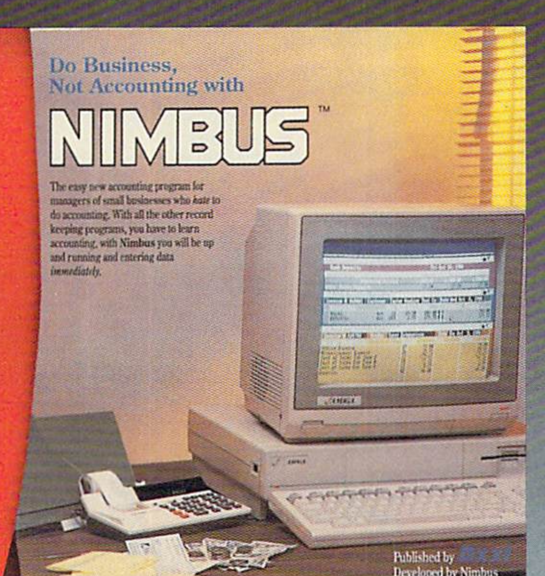


Drive your life away.

THIS SEASON'S M.V.P.s*

**(Most Valuable Programs)*





A·TALK III™

Ahead of the Pack

A-Talk III, the first communications program for the Amiga Computer™ to bring you an ARexx language interface now adds support of ASDG's new multi-serial port cards for the Amiga 2000™. With A-Talk III and ASDG's multi-serial cards you can now set up a multi-line BBS. A-Talk III is a professional program maintained by professionals.

Standard A-Talk III features include:

- Advanced Script Language with over 50 commands, interactive commands, and automatic generation of logon Scripts.
- ARexx Language Interface.
- Over 9 protocols including: XMODEM, YMODEM-g, Kermit and WXMODEM and ZMODEM resume.
- Global setting screen for setting up parameters for host systems.
- Support for over 10 modems including Hayes™, HST and Telebit.
- Busy signal detection.
- System Clipboard support with Cut, Copy and Paste.
- International Fonts and Keyboard Support.
- Terminal emulations including: VT100, VT52, H19, ANSI, and Tektronix 4010/4010, IBM PC ANSI Color Graphics.
- Overscan in NTSC and PAL

Requires 512K, 1 Meg of Memory Recommended

List Price: $99 US

Critics' Praise:

"More file transfer, display and communications options than you can shake a stick at." — *INFO Magazine*

"One of the most powerful communications packages on the market" — *Amiga World*

"I would wholeheartedly recommend your using A-Talk (III)" — *Amiga Sentry*

"If you need a communications package that does it all" — *Amazing Computing*

"A-Talk, the outstanding commercial program from America" — *Your Amiga (UK*

"A-Talk III sets new standards" — *Amiga Markt & Tech*

"A sportscar disquised as a Volkwagen" — *Dator Maga*

"A-Talk III is the program of choice" —*Amiga G*

NIMBUS™

Tackle Business, Not Accounting

Nimbus simplifies the accounting process so you can get on with your business. Accounts are kept on a cash basis, automatically transforming your check book register into an Income Statement and Balance Sheet. Setting up Nimbus is as easy as entering your company name, address and an opening account balance. Forget debits and credits, Nimbus disperses amounts to proper accounts as you write checks and create invoices. Customers and vendors are kept track of by name not an assigned number. The built-in Chart of Accounts can be used as is, or edited to suit your particular requirements.

Standard Nimbus features include:

- Fully integrated General Ledger, Sales/Accounts Receivable, Purchases/Accounts Payable
- Standard reports including aging report available at any time
- Logically progressive Mini-menus guide you through the data entry process
- Daily, weekly, or monthly sales and expense reports
- Separate Customer Statements
- Capsule statement available at bottom of each invoice if desired
- Utilizes Hard Disk and separate Data Disk for unlimited invoicing and payables.
- Plain paper or pre-printed Invoices and Statements

Requires 512K, 1 Meg of Memory Recommended

List Price: $159 US

Both Now Available from your Amiga Software Dealer

Dealers call: American Software, Comp Rehend, Micro-Pace, Soft-Kat, Southern Technologies or Triangle Electronics.



P.O. Box 90309, Long Beach, CA 90809
(213) 427-1227

AWARD WINNING Oxxi SOFTWARE

Circle 75 on Reader Service card.

MASTER 3A: $119!..

FREE SHIPPING ON SOFTWARE ORDERS OVER $100!
Via UPS 2nd Day Air. US Only (Alaska & Hawaii excluded). COD add $3.00

TELECOMMUNICATIONS
- A-Talk III $65
- Atredes BBS Pro $99
- **Baud Bandit $32**
- BBS-PC! $99
- Online! Platinum $65
- **VTX On-Line $55**

PRODUCTIVITY
- Analyze 2.0 . . . . $65
- Data Retrieve $55
- Data Retrieve Pro $199
- Desktop Budget $45
- Excellence! $175
- Formation $45
- Kind Words $65
- Maxiplan Plus $129
- **Microfiche Filer Plus . $119**
- MFF Business DBases . $39
- MFF Home DBases . . . $27
- **Norgen (genealogy) . . . $65**
- Phasar $59
- ProWrite 2.0 . . . . $85
- Scribble! Platinum $99
- Superbase Personal 2 . . . $99
- **Superbase Professional . $199**
- Superplan $99
- Transcript $45
- **Word Perfect $165**
- Word Perfect Library . . . $85
- Works Platinum $195

THE LIGHTSPEED ADVANTAGE:
- Three years Amiga market experience.
- **Authorized Dealer!** All Systems in stock!
- Our team is comprised entirely of Amiga owners and enthusiasts.
- Excellent Technical Support from experienced Amiga users.
- Up-front policies.
- Competitive prices.
- **Toll-Free Customer Service!**

Amiga is a trademark of Commodore-Amiga.

ENTERTAINMENT
- Afterburner $32
- **Aquaventure $27**
- Arthur—Excalibur $32
- Aunt Arctic Adventure . . . $27
- Baal $21
- Balance of Power 1990 . . $32
- Ballistix $23
- **Batman $29**
- Battle Chess $32
- BattleTech: Crescent Hawk . $32
- Blood Money $27
- Breach $27
- Captain Blood $32
- Carrier Command $29
- DataStorm $27
- Death Bringer $27
- **Denaris $27**
- Dragon's Lair $39
- Dungeon Master $27
- **Eliminator $23**
- Elite $32
- Faery Tale Adventure $32
- Falcon $32
- **Falcon Mission Disk #1 . $17**
- Federation $32
- Flight Simulator II $32
- FS-II Scenery (ea) . . . $19
- Gold of the Realm $27
- Gunship $35
- Harpoon $27
- Hole in One Mini Golf . . . $27
- Hostage $29
- Impossible Mission II . . . $14
- **It Came From The Desert . $32**
- **Jack Nicklaus Golf $32**
- **Jinks $21**
- Journey $32
- Kingdoms of England . . . $29
- The Kristal $32
- Kybos $23
- **Light Force $27**
- Lords of the Rising Sun . $32
- **Magic Johnson (1 MB) . $32**
- Mean 18 . . . . $29
- Millenium 2.2 . . . . $32
- Neuromancer $29
- Operation Wolf $23
- Paladin $27
- Prime Time $27
- Prospector—Xor $27
- **Qix $23**
- **Rambo III $23**
- Renegade $23
- Rocket Ranger $32
- Roger Rabbit $29
- **Running Man $32**
- Savage $27
- **Shanghai $14**
- Shogun $39
- Sim City $32
- Sky Chase $29
- Speedball $27
- Starglider II $29
- Sub Battle $14
- **Super Hang-On $32**
- Sword of Sodan $32
- TaleSpin $32
- Technocop $32
- Test Drive II: The Duel . . $29
- Supercars $14
- California Challenge . . $14
- Total Eclipse $27
- TV Sports Football $32
- Universal Military Sim . . $32
- Scenarios 1 or 2 . . . . . . $14
- Universe 3 . . . . $32
- **Vindicators $27**
- **Vortex $27**
- War in Middle Earth $35
- Wayne Gretzky Hockey . . $32
- World Snooker $21
- Zork Zero $39
- Pub Games $23
- Questron II $32

ELECTRONIC ARTS
- AD&D Heroes $27
- Annals of Rome $23
- **Artura $27**
- Awesome Arcade Pak . . . $32
- Bard's Tale $32
- Bard's Tale II $39
- Bard's Tale Clue Book . . . $10
- Bard's II Clue Book $10
- **Battlehawks 1942 . . . . $32**
- Chessmaster 2100 . . . . . $32
- Deluxe Music $65
- **It's Only Rock & Roll . $15**
- **Hot & Cool Jazz $15**
- **Deluxe Paint III $95**
- **Deluxe PhotoLab $95**
- Demon's Winter $27
- Double Dragon $27
- **Dragon Force $32**
- Earl Weaver Baseball . . . $32
- **Commissioner Disk . . $15**
- MLBPA 1988 Stats . . . $15
- Empire $32
- Ferrari Formula One $32
- Gettysburg $39
- **Indy—Last Crusade . . . $27**
- Interceptor $32
- Kampfgruppe $39
- Life and Death $32
- Marble Madness $15
- Mavis Beacon Typing . . . $32
- **Populous $32**
- **Power Drome $27**
- Reach for the Stars . . . .
- Rebel Charge . . . . $
- Reel Fish'n $2
- Sorcerer Lord $23
- Time and Magik $27
- World Tour Golf $15
- Zany Golf $27
- **Zak McKracken $29**

POLICIES:

Shipping Info: Software is $2.50/item ($5 max) via UPS Ground. For UPS 2nd Day Air add $1.50 to the Ground rate. COD add $3.00. Next Day Service available. Other carriers, Hardware, and Foreign rates may be extra.

Other Policies: No charge to Credit Card until shipping date, and no surcharges. Exchanges only for defective items, and for same item only. We cannot guarantee product satisfaction.

New from Pulsar Technologies!

External RAM Expansions for the 500 & 1000. 2Mb Capacity, User upgradeable.

- 0k $215
- 512k $299
- 1Mb $389
- 2Mb $569

DESKTOP PUBLISHING
- Award Maker Plus $32
- ComicSetter $65
- Fine Print $32
- **PageStream $129**
- PageStream Fonts (ea) . . $27
- Professional Draw $129
- **Professional Page . . . $225**
- **Structured Clip Art . . . $39**
- Pro Fonts 1 & 2 (ea) . . . $23
- ProScript $32

UTILITIES
- Amiga Alignment Kit . . . $32
- B.A.D. $32
- **Cygnus Ed Professional . $65**
- **Disk Master $32**
- GOMF! $27
- **Marauder II $17**
- Project D $32
- Quarterback $45
- Raw Copy $39
- WShell $32

ORDERS & CUSTOMER SERVICE

1-800-735-4428

LIGHTSPEED

Continued from p. 18

put status (MIDI or Amiga internal samples), and an offset control that delays the start time of the sequence by a number of measures.

This or That

Music-X's approach to sequencing is a bit confusing. A sequence can be thought of as one entire musical part extending from the beginning to the end of a song, or as a fragment to be strung end to end with others to form a complete part. It can be triggered by a control sequence, and it can also be a vertical arrangement containing more than one part (for example, you could record drums, bass, piano, and brass parts on separate MIDI channels into one sequence).

Up to 20 sequences can run simultaneously, and in the Track window at the top right of the screen, you can see which are playing at any given time. This display is just for monitoring purposes, though; the only control you have here is the ability to mute a sequence by clicking on its name.

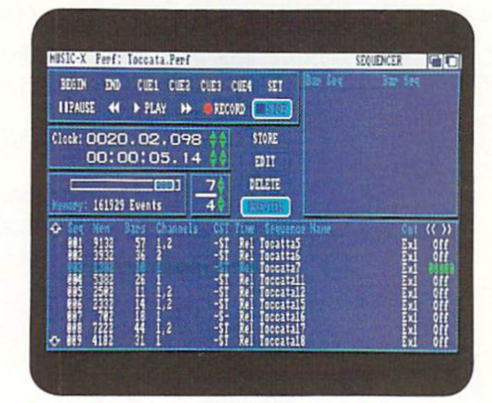
Click Record in the Transport window and the program presents a number of recording options. The choices include Punch-In Manual (which you control with the Return key), Punch-In Auto, Loop mode (which allows you to record multiple passes of a part without restarting the recorder), Mix Down mode (merges a number of sequences into one), and a Count-In setting (which backs the recorder up a specified number of bars before starting to record). While these options can make the recording process convenient, their presentation—in a window that appears every time you select Record, regardless of whether you need to reset your parameters—is inconvenient. A better approach would be to offer them in a pull-down menu.

Once you have made your selections, you can start the recorder either by clicking on "Go" or by playing a note on your controller.

It is unfortunate that the Sequencer page's metronome is in the form of a looped track, as this setup complicates the changing of time signatures. In order to retain an accent on the first beat of each measure, you must program any time-signature changes into the metronome track—otherwise you are stuck with an unaccented metronome.

Three Down

The Sequencer screen offers three pull-down menus. The Options menu is the place to go for sequence manipulation: a Copy Sequence selection duplicates the current sequence and places it in another location, while Merge Sequence combines two sequences into one. Extract Sequence removes MIDI-channelized data, System-Exclusive data, or Music-X events (commands) from a sequence. For example, you could split a sequence containing a bass part on MIDI channel 1 and piano part on channel 2 and copy it to separate sequences, or you could transfer all controller data to another sequence. Erase All Sequences wipes out all sequence data, but leaves everything else intact. Output Channels lets you globally remap MIDI channels: Any data on MIDI channel 1 could be routed to channel 10, for instance.



From the Sequencer page, you can keep tabs on all your tracks.

Items on the Synchronization menu help you sync Music-X to other timing-intensive devices. Music-X can slave to MIDI, MIDI Time Code, SMPTE, the Amiga's internal clock, or the Amiga's internal video clock (the chip that controls the monitor's Vertical Blanking Interval generates a timing frequency that is the same as the NTSC standard frame rate for television). A Time Code Offset enables you to set your start time to zero even though it may be starting 20 minutes into the code (SMPTE or MTC). Music-X can also serve as a timing source, generating MIDI sync, MIDI Start and Stop, and Song Position Pointer. Finally, a Delay option attempts to compensate for older MIDI gear that may not be correctly implemented with Song Position Pointer.

The Editorial Department

You can tweak your sequences in either the graphic (Bar Editor), or text (Event Editor) page.

A good portion of the Bar Editor page is taken up by a Graphic Score window, which displays notes and other MIDI data as bars on a grid, piano-roll style. Running down the left side of the window is a five-octave keyboard that acts as a note reference. An octave slider to the right scrolls the display up and down to show notes that fall in outer octaves, while a scroll bar beneath the window moves the display back and forth in time. Through a pull-down menu, you can determine what types of data (notes, controllers, Music-X events, and so on) are shown on the grid.

The Bar Editor accepts input by either real-time recording (there are Record, Play, Pause, and Stop buttons at the lower left of the screen), step-time recording, or manual placement of notes (via mouse) on the grid. By selecting one of the boxes numbered one through 16 you can determine which MIDI channel the notes will play on, and on the grid, each MIDI channel is represented by a different color.

Along the right side of the screen you will find a list of tools for adding, inserting, moving, and erasing data, and more. The Lock tool removes a selected MIDI channel's data from the grid, so that it is heard but not seen. Select and Mark are two options for partitioning off data for editing. Zoom changes the magnification of the grid, while Snap, a sort of auto-quantizer, is useful for entering new data onto the grid. Quiet silences the sound source when entering new data onto the grid. Scroll determines whether the display moves as sequences play (scrolling in the Sequencer page is great, by the way), while Grid sets the display resolution. The Parameter selection opens a window full of sequence-

playback options, including Play in Context, which determines whether the sequence plays solo or with others. While Play in Context is a nice feature, it would be easier to use if you could trigger it via a gadget.

The Bar Editor's Cut, Copy, and Paste functions let you move groups of data to different locations in time. You can select data using either the Select or Mark tools; a small window below the Graphic Score shows you the beginning and ending points you have selected. When you copy or cut, a line appears to paste the data onto the grid. Position the line and click; if you have chosen the Select tool, the new material will be inserted into the score; if you chose Mark, it will be pasted over existing data. Cut and Paste double as transpose functions: By copying data to a higher or lower position on the grid, you are transposing it.

EVENTUALLY

There are no global methods for making changes in tempo, time signature, or loop, but you can accomplish these operations on separate pieces using Music-X events—commands that you place into the sequence like any other data.

One global feature Music-X does offer is Quantize, with its array of options such as minimum and maximum threshold, quantization by percentage, velocity scaling, and the ability to determine whether the operation affects a note's start time, duration, or both. Unfortunately, these options do not include the quantization factor (eighth notes, quarter notes, or other); you must return to the grid setting for that.

The Event (text) editor displays sequence data in alpha-numeric format. It has some of the same features as the Bar Editor, but offers very limited control over the display: You can determine only whether durations or note-offs are shown. Keyboard editing is easy—the cursor arrows move you around the screen while the + and – keys change note values. There are two things I do not like about the Event editor, however. Selecting groups of events can be time consuming because you must click each event individually. Also, unnecessary digits clutter up the display. For instance, the measures column in the durations field is taken out to four digits. . .how many events will last 1000 measures?

MY BACK PAGES

The Samples page lets you arrange samples in a list, and offers tuning, octave-



Would you like something from the Bar Editor?

shift, and envelope-editing features.

In the Keymap page, you can use a controller keyboard to call up other events. MIDI notes can trigger other notes, controller changes, program changes, or Music-X commands. This page is very powerful and has great potential for live interactive performances.

The Filters page lets you change note messages into other event types, filter out, thin out, and rechannel selected data types, and to echo data to the internal voices or back out through MIDI. There are 16 filters in all (one for each MIDI channel) and you can save settings for each in a separate performance file.

The Librarian page works with any MIDI device capable of sending and receiving system-exclusive information. To set it up, you must know the SySex protocol that your particular MIDI machine requires for this kind of communication. If you don't know system exclusive and cannot find your protocol on a bulletin board, you will have to depend on a SySex fanatic to write one for you.

FLIPPED OUT

Music-X is both powerful and comprehensive. Because its design is open- ►

ended, it has the potential to be even more powerful. The timing is solid and the many synchronization options are professional. Music-X's manual is clear and well written. The Librarian, Keymaps, and Filters pages are clever and very useful, and the graphic editing is great, but the front end of Music-X, the sequencer, is in many ways needlessly complicated. It works fine, but the extra steps required for routine operations give it a cumbersome feel. And while having to use Music-X events for such things as tempo and meter changes may be fine for some applications, a program of this caliber should have global controls as well. This is not to say that Music-X cannot get the job done—there is more than enough here to work with. I just hope that MicroIllusions will forego esoteric functions on future updates in favor of a more elegant front end.

Music-X
MicroIllusions
17408 Chatsworth St.
Granada Hills, CA 91344
818/360-3715
800/522-2041
$299.95
No special requirements.

Online! Platinum Edition

Limber's the word.

By Sheldon Leemon

THE VARIOUS COMMERCIAL information services and private bulletin boards accessible to Amiga users employ many different transfer protocols for insuring that data is received properly. On the PeopleLink network, for instance, Windowed Xmodem is the preferred method for receiving, while on GEnie, I use Ymodem-batch to transfer several files at once. On CompuServe, I prefer the proprietary B or Quick B protocol, on Bix I usually use Xmodem 1K, and on many bulletin boards, Zmodem is the protocol of choice.

Online! Platinum by Micro-Systems Software is one of the only Amiga terminal programs that supports all of these formats, as well as Xmodem and Xmodem CRC, Kermit, and its own Sadie protocol. (Sadie allows you to transfer files both ways and key in text, or "chat," all at the same time, but it is supported only by other Micro-Systems Software products). Its wide-ranging protocol support is not the only reason I like Online! Platinum, though. Its many other features, including a comprehensive script language, macro-key capability, and ARexx support, make it the first Amiga terminal program I've found that meets all of my basic telecommunications needs.

Easy to Say

While several other Amiga terminal programs include script languages that enable you to automatically execute a command sequence whenever a specified number is dialed, most of these are limited to a few commands that log you on (enter your account number and password) to a remote system. Online! Platinum, on the other hand, understands a much more extensive script language, one very similar to that used by the popular MS-DOS terminal program Crosstalk. Online!'s script language includes most of the features of a true programming language, such as a conditional IF statement, a JUMP command, and a WHEN command that lets you specify a response whenever a certain condition occurs. In addition, its powerful MENU command allows you to choose any pull-down menu item from a script. For example, to select the "2400" sub-item of the Baud selection on the COM menu, you would use the statement "MENU COM BAUD 2400". Because virtually all of the program's features are accessible through pull-down menus, they are also accessible from the script language.

Just because the script language is powerful, however, does not mean it is complicated. Online!'s special Learn mode allows you to create log-on scripts automatically. As you respond to prompts from the remote system, the program notes the exchange and writes a script that responds in exactly the same way to that series of prompts.

Bend and Stretch

Two other programming features further maximize Online! Platinum's flexibility. First is its extraordinarily powerful macro-key capability, which not only allows you to set up text strings that can be entered at the touch of key, but also lets you program Online!'s scripts and macros to call each other. This means that you can trigger any macro key from a script, and more importantly, that you can execute any script command from a macro key. Set the F10 key to "{script} MENU FILE RECEIVE. . .'RAM: Temp'," for example, and then, when you are ready to start downloading, all you have to do is press F10.

Perhaps the most important programming feature, however, is Online! Platinum's support of ARexx, an interpreted programming language that makes it easy for ARexx-equipped multitasking programs to communicate with one another. When you start up Online!, it opens a message port (which is, incidentally, named ONLINE-1, not MSS-ONLINE-1 as documented) that can receive requests from other programs. Other applications can use this port to send any script command to Online!, giving them complete control of the program. Likewise, Online! can send a message to any other ARexx-supported program using the ARexx script command. This kind of flexibility is what ARexx was designed for. Using Online! and Superbase Professional (Precision) together, for instance, you could update your stock portfolio easily: Have an ARexx program call up your information service via Online!, manipulate the text that comes in from the modem, and store the relevant information directly into a database.

About the only feature I can think of that is missing from Online! is one to enable ARexx programs to get the address of Online!'s capture buffer. With such a feature, ARexx could manipulate the data in the buffer directly. As currently implemented, the calling program uses an ARexx "get" command to receive text from the modem one character or one line at a time.

To Be. . .What Not to See

Among the program's host of other important features is its ability to emulate a number of popular terminals, such as the Tektronix 4010, and the DEC VT 52, VT-100, and VT-102. Online! Platinum

lets you choose from many different screen configurations (overscan or non-overscan, interlaced or non-interlaced, two to eight colors, with or without window borders and title bars, and more) and text fonts (IBM5, IBM8, Topaz8, Topaz9, or Topaz11). It offers a chat window for online conferences, and lets you toggle the printer on and off.

Each 40-number phone directory allows you to select a sequence of numbers to call, so that if one is busy, the next on the list is dialed automatically (or the same number is redialed until a connection is made). The program automatically retains an 8K review buffer so you can take another look at text that was scrolled by too quickly.

Online! Platinum is one of the first terminal programs to support multiple serial devices directly. I was able to use Online! Platinum with both the Supra 2400zi internal modem and ASDG's Dual Serial Board without altering the program in any way (alterations are necessary with most other programs). The only incompatibility I found was a mysterious failure when uploading files to CompuServe using the B protocol with the Supra internal modem.

One Thing at a Time

Online! Platinum does have a few drawbacks. For one thing, the program is huge—the code alone consumes almost 256K. If you have a 512K machine, don't plan on doing any word processing while you are downloading files. Even with a lot of memory, the program does not multitask well. When it is downloading a file, it slows other tasks to a greater degree than most terminal programs. Online! doesn't even multitask well within itself: When you open the review buffer, your terminal window freezes and becomes inoperative.

The user interface leaves something to be desired as well. For example, the translation tables, which let you replace any character with any other character (good for filtering out non-text characters), consist of 256 hexadecimal numbers. To change a number, you must click on each digit with the mouse; this adds one to the number. In order to filter out the high bit of the top 128 characters, therefore, you need to click eight times on each of 128 digits—1024 clicks in all. If you inadvertently pass the number you want, you must click 15 times to get back to it. Obviously, a "strip high bits" or "filter non-printing" button would be a big help here. Also, each phone entry saves many of the current menu settings, without any visual indication of what the settings are. An expanded phone book edit screen, showing all of relevant settings, would go a long way towards eliminating confusion.

Nontheless, Online! Platinum is the Amiga's most professional and polished terminal program. It includes important extra touches, including an excellent hard-drive installation program, a readable and informative manual, and good telephone support. And finally, I applaud Micro-Systems Software for replacing the Archive menu selection with the more standard Open and Save options. With its exhaustive array of features and programming capabilities, Online! Platinum should meet the needs of even the most demanding user.

Online! Platinum Edition
Micro-Systems Software
12798 W. Forest Hills Blvd.
Suite 202
W. Palm Beach, FL 33414
407/790-0770
$99.95
No special requirements.

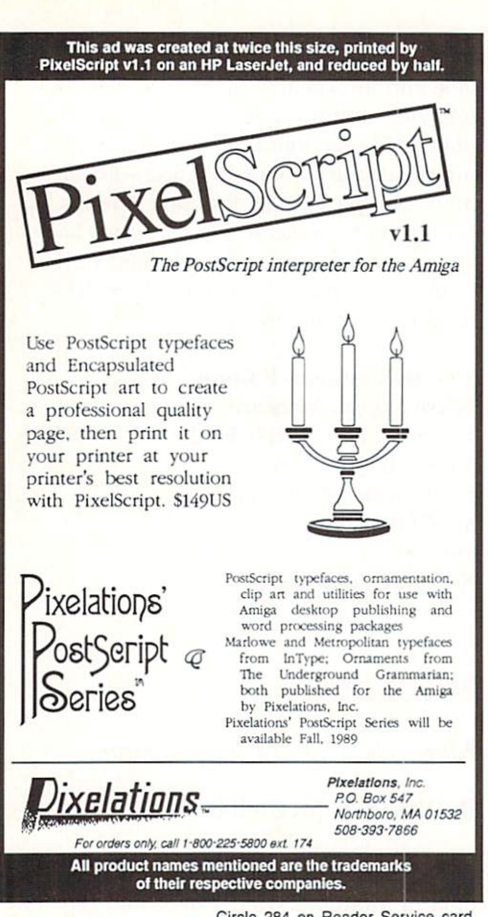
M2Debug

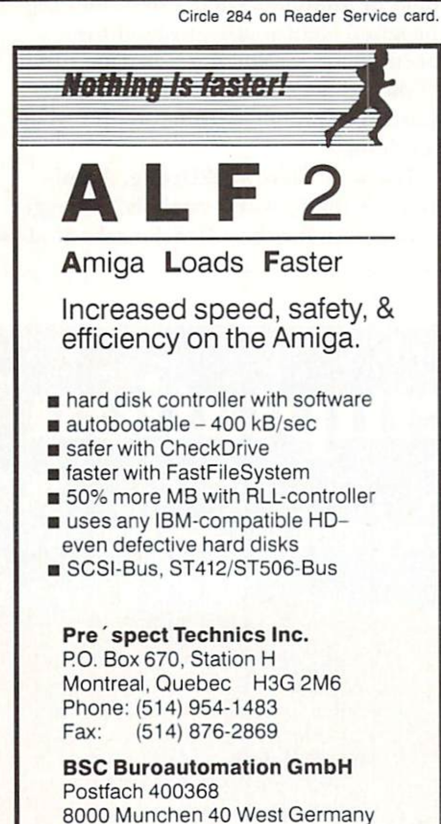
Make Benchmark bugs boogie.

By David T. McClellan

SAT DOWN TONIGHT, plugged in 600 lines of Modula-2 code, ran it, and the program went south—without even a beep goodbye. Now I get to plug in 45 WriteString( ), WriteInt( ), and WriteCard( ) calls and try to figure out what it's doing.

But wait! Here's M2Debug, Avant-Garde's full-featured symbolic debugger companion for their Benchmark: Mod- ►





ula-2 compiler. A new version of the original compiler, a source-code tab-to-blank tool, and a tutorial are included with the package. As with the other Benchmark tools, this debugger is customizable and does its best to run on 512K floppy-based Amigas.

M2Debug can put several windows on your screen, including ones for source code, variables and values, memory (hex, decimal, and so on), registers, procedure call (stack) traceback, disassembled source, breakpoints, modules, execution (stepping/running), and other information. You can resize each of the windows individually, and scroll through them both horizontally and vertically (for several, you must scroll both ways). Most of the windows allow you to make a selection (a line of text or a variable, for instance) with the mouse, and with many, you can switch to another window for the operation. For example, you can select a line in the symbolic variable window, click the Destination gadget above the memory window's scroll bar, and view the variable in hex. Ditto for the source code and disassembly windows.

Step Out and Breakdance

M2Debug knows how to single step, slow-run, and run your modules at normal speed, and can set several kinds of breakpoints. You can single step at both the Modula-2 and 68000 assembly-language levels, so you can get very close to your code. Single-step flavors include stepping into procedure calls (i.e., single stepping each line of a called procedure) and stepping over them (treating the whole procedure call as one step).

The Run Slowly option is a unique and useful cross between single stepping and littering the code with breakpoints to execute at full speed. Here, M2Debug displays each line as it executes, scrolling the source text slowly. You can interrupt the process at any time by hitting the F5 key.

You can set temporary breakpoints (whereby the program runs to the breakpoint, stops executing, and clears the breakpoint), permanent breakpoints (which control will always stop at, such as in a loop or procedure), and the limited repeat variety, wherein the debugger does not stop until it has hit the breakpoint a given number of times. While you cannot set breakpoints that have debugger commands attached as some other debuggers allow, with M2Debug's multiple tracking windows you don't really need to. When you set a breakpoint on a line that modifies a variable, that variable will generally be in the symbolic data window.

A more complicated function than is immediately apparent, the Symbolic Data window lets you look at variables. Suppose you have a record or array containing components that are themselves records. M2Debug uses an "increasing level of detail" approach to accommodate all your data without scrolling 90% of it off the screen. Click on a record, and the values of atomic fields—numbers or characters—are displayed beside their corresponding field names. The size of every field that is a record is displayed beside the field's name; click on the name and that record-field expands to fill the window. You can move up and down levels of detail this way to see whole data structures.

Global variables are displayed as you enter the program and stop on the first line; you can examine local procedure variables when control enters their procedure. Also, when in a low-level procedure, you can move up the procedure call stack to examine the variables of its caller, and its caller's caller, and so on. Lastly, you can set the values of atomic variables and fields with the F9 key after selecting the variable/field. Strings are set one character at a time.

Down and Dirty

M2Debug operates either at Modula-2 source level or the assembly-language bits-and-bytes level, and can intermix the two. Besides examining variables in symbolic form, you can display them or other chunks of memory in hexadecimal, octal, binary, or decimal format, or as characters, and do memory fills this way, as well. The debugger also lets you view and set the 68000 registers, plus you can disassemble Modula-2 source lines and single-step through the assembly. This capacity is not something you will need often, but it is useful. M2Debug can also report which machine resources the program has tied up—open and active devices, system libraries, message ports, resources, tasks, overall memory usage, and contents of directories (via a directory lister). Except for the directory window, you cannot modify the displays, but

they are helpful as is and provide a warm, fuzzy feeling.

You Configure it Out?

A built-in configuration section, available from the debugger's main menu, lets you create custom startup patterns: which windows open initially, what language it runs in, and various other maxima. You can save the options in a file called M2Debug.config, which is read at startup time from either the current directory or the S: directory. You can also save other configuration files and load them while running the debugger.

M2Debug is the kind of dog you'll want a big back yard for. I ran it in about 800K of available memory and it did just fine on a medium-size program, but I believe it might get surly in 512K. Avant-Garde Software provides it in both a 84K packed form, which saves disk space, and a 181K unpacked form. Running on a two-floppy system is awkward, with one disk for the compiler, linker, and libraries, and the other for your source. I transferred the debugger to my RAM disk; a hard disk would be better.

A hot key lets you switch from the program to the debugger and back. I had a few problems with it, and sometimes had to switch and click on a few windows to get the debugger in gear. It never hung, though, so I can't grumble much. The manual it contains bits of information not obvious from running the software.

Although I generally think through my designs carefully, sketch out the program and code, and test in chunks, I still end up needing a good debugger more often than I like to admit. M2Debug is a good debugger, and it makes Modula-2 programming easier. I like it.

M2Debug
Avant-Garde Software
2213 Woodburn
Plano, TX 75075
214/964-0260
$149.95
Benchmark: Modula-2 compiler required.

Ami. . . Alignment System

Get in the groove.

By Tim Walsh

AS A RULE, floppy-disk drives are noted for their Maytag-like durability. After a few years of daily grunt work, however, drive-head misalignment can occur, resulting in the drive's inability to read one or more of the 80 tracks on a disk. Like a firecracker with a defective fuse, misalignment is potentially dangerous: Entire disks can become corrupted every time data is saved to them.

With Free Spirit Software's Ami. . . Alignment System and a screwdriver, you may be able to save yourself an expensive visit to the repair center by realigning drives yourself. (Keep in mind that making the repair yourself may invalidate your drive's warranty.) At the very least, it will help you to rule out misalignment as the source of your difficulties.

A Look Inside

The boot disk contains a variety of utilities, including one for installing Ami. . . Alignment onto a hard disk. Double-click the HD Install icon and enter a path name including a directory; the program does the rest.

Disk number two, the Calibration disk, contains the Align Data file, which is used for drive-alignment and speed checking. You will need the original disk for testing purposes; duplicates may provide imprecise feedback.

The Align program identifies misalignment and times your drive's motor speed. Start Align from either the Workbench or the CLI and a high-tech control panel, with buttons for choosing drives DF0: through DF3:, appears. With the Calibration disk in the selected drive, you can begin testing.

Alignment checking can be done manually (by clicking the appropriate drive button, selecting Manual mode, and stepping through the tracks individually) or automatically. Either way, the Align control panel reports the status of each track as it is tested. If it signals a prob- ►



lem, follow the manual's instructions for drive disassembly. The manual gives descriptions of each process. It shows you how to access the stepper motors of Commodore Amiga disk drives (both internal and external) and two third-party drives, the M.A.S.T. and the AIR. As you adjust the ailing unit's stepper motor with a screwdriver, the Align program retests automatically and provides on-screen feedback. Tweak the motor until the program reports satisfactory results.

The Align program's Speed Test gadget summons a real-time digital read-out of the rpm (revolutions per minute) on your choice of drives. Because accelerated machines normally cause both external and internal disk drives to spin a bit faster, you must power up in 68000 mode for accurate results.

Like a high-speed phonograph, a properly-timed drive spins floppy disks at a given rate—300 rpm in the Amiga's case—with very little deviation. If the speed test indicates that your drive is turning too slowly, you will need to take the unit to a service center for a cleaning or other service. Slightly faster spinning is nothing to be concerned with.

READ AND WRITE RIGHT

The Drive Performance Function test, which rates track integrity and read and write performance, requires you to place a blank disk in the drive. Here, the program clocks the time needed to write a file to the work disk, then measures the time it takes to read the file. Deviation from a standard 12,000 bytes per seconds for reading and 5000 bytes per second for writing on each track indicates a potential alignment problem. Read and write times on my drive came in at just about 350 bytes per second higher than these standards. Above-standard ratings are not problematic, but a drive that processes fewer bytes per second than the standard is either misaligned or has a more serious problem.

The Ami...Alignment System takes advantage of multitasking, and from the control panel you can toggle between the program and the Workbench screen. A Print option puts your test results in black and white, while a sound option provides eerie sound effects.

The UnStick programs, represented by four icons (UnStickDF0 through UnStickDF3) tackle the task of "unsticking" drives plagued by intermittent stopping of the read/write heads at track 0.

Ami...Alignment helped me align an A1010 drive that regularly corrupted disks during save operations. Now I'm back to routinely saving important files on that drive. That's the best testimony I could give any product.

Ami...Alignment System
Free Spirit Software
PO Box 128
Kutztown, PA 19530
215/683-5609
$49.95
No special requirements.

I.C.E.

Calculating on the rocks.

By Louis R. Wallace

A CALCULATOR IS one of the most useful accessories you can add to your desktop. With I.C.E. (Integrated Calculation ►

Computer Mart

BEST BUY
SUPRA 2400 MODEM
$129.00
HAYES COMPATIBLE
300/1200/2400 BAUD

SOFTWARE

3-DEMON	68.00
3D FANCY FONTS	48.00
AAARGH	21.00
AC BASIC	135.00
AC FORTRAN	198.00
AEGIS DRAW 2000	168.00
AMIKIT	24.00
ANALYTIC ART	38.00
ANALYZE 2.0	62.00
ANDROMEDA MISSION	25.00
ANIMAGIC	63.00
ANIMATE 3D	95.00
ANIMATOR APPRENTICE	187.00
AQUAVENTURE	24.00
ARCHITECTURAL DESIGN	22.00
AREXX	30.00
ARKANOID	25.00
ASSEMPRO	69.00
ATALK III	60.00
ATREDES BBS PRO.	90.00
ATREDES TERMINAL	30.00
B.A.D.	30.00
BARD'S TALE II	37.00
BATTLE CHESS	30.00
BAUD BANDIT	30.00
BBS-PC	92.00
BENCHMARK MODULA 2	138.00
BENCHMARK LIBRARIES	69.00
BEYOND DARK CASTLE	21.00
BLITZ. ON THE ARDENNE	37.00
BLOOD MONEY	24.00
BREACH	28.00
BRIDGE 5.0	22.00
BUBBLE BOBBLE	26.00
BUBBLE GHOST	25.00
BUTCHER 2.0	23.00
CALIFORNIA GAMES	27.00
CALLIGRAPHER	74.00
CAPE 68K ASSEMBLER	59.00
CAPONE	35.00
CAPTAIN BLOOD	31.00
CARMEN SAN DIEGO	27.00
CARRIER COMMAND	28.00
CENTERFOLD SQUARES	20.00
CHESSMASTER 2000	31.00
CHRONOQUEST	24.00
CITY DESK 2.0	120.00
CLUE	24.00
COMICSETTER	66.00
COMICSETTER DATA DISKS	22.00
CRITICS CHOICE	150.00
CYGNUS ED PRO	60.00
DARK CASTLES	28.00
DATARETRIEVE	53.00
DEATH BRINGER	24.00
DECIMAL DUNGEON	32.00
DELUXE HELP DISKS	22.00
DELUXE MUSIC 2.0	69.00
DELUXE PAINT III	99.00
DELUXE PHOTO LAB	98.00
DELUXE PRINT II	57.00
DELUXE PRODUCTIONS	138.00
DELUXE VIDEO 1.2	86.00
DEMON'S WINTER	27.00
DESIGN 3D	60.00
DESKTOP BUDGET	42.00
DESTROYER	27.00
DEVPAK ASSEMBLER	60.00
DIGI PAINT 3.0	66.00
DIGIWORKS 3D	78.00
DIRECTOR	44.00
DIRECTOR TOOLKIT	28.00
DISCOVERY DATA DISKS	14.00
DISCOVERY MATH	28.00
DISC. SPELL	28.00
DISC. TRIVIA	28.00
DISK MASTER	48.00
DISK MECHANIC	55.00
DOS TO DOS	32.00
DOUGS MATH AQUARIUM	51.00
DOWNHILL CHALLENGE	21.00
DR. T'S SOFTWARE	CALL
DRAGON'S LAIR	39.00
DRUM STUDIO	30.00
DUNGEON MASTER	24.00
DYNAMIC DRUMS	51.00
DYNAMIC STUDIO	138.00
EARL WEAVER BASEBALL	35.00
EMPIRE	35.00
EMPIRE STRIKES BACK	24.00
ENCHANTER	21.00
EUROPEAN SCENERY DISK	18.00
EXCELLENCE	174.00
EXPRESS PAINT 3.0	78.00
FA INTERCEPTOR	35.00
FACC II	24.00

Kronos A2000 HardCard
Fast Autobooting Controller

Non-DMA design delivers DMA Speeds without the problems associated with typical DMA controllers. For A2000 Only

Super Low Prices on Quality Kronos

Kronos Card w/Frame	$216.00
Kronos w/ST-157N 48 Meg	*$638.00*
Kronos w/Quantum 40	$786.00
Kronos w/Quantum 80	$1085.00
Kronos w/ST-296N 80 Meg	*$789.00*

FAERY TALE ADVENTURE	35.00
FAERY TALE HINT BOOK	10.00
FALCON	30.00
FAMILY TREE	30.00
FANTAVISION	38.00
FEDERATION	30.00
FERRARI FORMULA I	35.00
FINE PRINT	30.00
FIRE POWER	16.00
FIRST LETTERS & WORDS	35.00
FIRST SHAPES	35.00
FLIGHT PATH 737	19.00
FLIGHT SIMULATOR II	36.00
FLIPSIDE	38.00
FLOW	65.00
FORMS IN FLIGHT II	72.00
FORTRESS UNDERGROUND	19.00
FRACTION ACTION	32.00
GETTISBURG	42.00
GIZMOS 2.0	44.00
GNOME RANGER	14.00
GOLD RUNNER	28.00
GOLD SPELL II	29.00
GOLDEN PATH	32.00
GOMF 3.0	24.00
GOMF 3.0 W/ BUTTON	51.00
GRABBIT	21.00
GRADE MANAGER	52.00
GRAND PRIX CIRCUIT	28.00
GRAPHIC STUDIO	38.00
GREAT STATES II	25.00
GRID START	19.00
GAUNTLET II	35.00
HACKER II	28.00
HARDBALL	28.00
HARRIER COMBAT SIM.	35.00
HARRIER MISSION	19.00
HEROES OF THE LANCE	26.00
HITCHHIKERS GUIDE	21.00
HOLE-IN-ONE MIN. GOLF	22.00
HOLLYWOOD POKER	22.00
HONEYMOONERS	25.00
HUMAN DESIGN	22.00
HUNT FOR RED OCTOBER	35.00
HYBRIS	24.00
INDOOR SPORTS	35.00
INOVATOOLS #1	55.00
INSANITY FIGHT	28.00
INTELLITYPE	35.00
INTERCHANGE	32.00
INTERFONT	72.00
INTERNATIONAL SOCCER	24.00
INTROCAD	51.00
INVESTOR'S ADVANTAGE	66.00
JACK NICHOLAS GOLF	30.00
JET	36.00
JET SET UTILITIES	24.00
JEWELS OF DARKNESS	21.00
JIGSAW	30.00
JINXTER	28.00
JOE BLADE	21.00
KAMPFGRUPPE	39.00
KARATE KID II	28.00
KARATE KING	19.00
KARTING GRAND PRIX	19.00
KINDERAMA	32.00
KINDWORDS	63.00
KING OF CHICAGO	35.00
KINGDOMS OF ENGLAND	30.00
KRISTAL	30.00
LANCELOT	26.00
LAS VEGAS	19.00
LATTICE C 5.0	204.00
LAZERSCRIPT	29.00
LEADER BOARD DUAL PACK	21.00
LEATHER GODDESSES	26.00
LIGHTS, CAMERA, ACTION	51.00
LINKWORD LANGUAGES	19.00
LION'S FONTS	54.00
LRDS OF THE RISING SUN	31.00
LOTTERY MAGIC	18.00
LURKING HORROR	28.00
M	155.00
MAGELLAN	117.00
MAGIC JOHNSON BASK.	30.00
MANIC INVADERS	19.00
MARBLE MADNESS	35.00
MASTER TYPE	28.00
MATH MAGICIAN	28.00
MATH TALK	35.00
MATH TALK FRACTIONS	35.00
MATH WIZARD	32.00
MAVIS BEACON TYPING	35.00
MAXIPLAN 500	94.00
MAXIPLAN PLUS	126.00
MEAN 18	28.00
MENACE	28.00
MICROBOT DESIGN DISK	22.00
MICROFICHE FILER PLUS	108.00
MICROLAWYER	38.00
MIDI MAGIC	92.00
MIMETICS UTILITIES 1	40.00
MINI PUTT	24.00
MISSION CON-BAT	29.00
MISSION ELEVATOR	32.00
MODELER 3D	88.00
MOEBIUS	41.00
MONEY MENTOR	61.00
MONOPOLY	24.00
MOVIE CLIPS	21.00
MOVIESETTER	63.00
MULTI-FORTH	56.00
MUSIC MOUSE	50.00
MUSIC STUDENT	35.00
NEUROMANCER	27.00
OBLITERATOR	28.00
OF THE FLESH	24.00
ONE ON ONE	14.00
ONLINE PLATINUM	60.00
OPERATION WOLF	24.00
OPTICKS	120.00
ORGANIZE	63.00
OUTRUN	29.00
PAPER BOY	30.00
paGE STREAM	138.00
PAGEFLIPPER + F/X	94.00
PALADIN	28.00
PEN PAL	90.00
PERFECT SCORE	55.00
PERSECUTORS	13.00
PHANTASIE III	28.00
PHASAR 3.0	56.00
PHOTON CELL ANIMATOR	104.00
PHOTON PAINT 2.0	90.00
PHO. PAINT SURFACE DISK	18.00
PIONEER PLAGUE	24.00
PIXELSCRIPT	66.00
PIXMATE	44.00
PLATOON	28.00
POPULOUS	36.00
PORT OF CALL	32.00
POWER WINDOWS 2.5	62.00
PRINTMASTER +	32.00
PRISON	24.00
PRO ASM	66.00
PRO BOARD	355.00
PRO NET	355.00
PRO SOUND DESIGNER	98.00
PRO VIDEO PLUS	179.00
PRO. DATARETRIEVE	195.00
PROFESSIONAL PAGE	240.00
PROJECT D	32.00
PROWRITE 2.0	78.00
QIX	21.00
QUADRALIENS	18.00
QUARTERBACK	48.00
QUESTRON II	32.00
RAMPAGE	24.00
RAW COPY	36.00
RISK	24.00
ROAD RAIDERS	24.00
ROADWAR 2000	28.00
ROADWAR EUROPA	31.00
ROCKET RANGER	35.00
ROGER RABBIT	27.00
ROMANTIC ENCOUNTER	28.00
RUSH'N ATTACK	28.00
SARGON III	35.00
SCRIBBLE PLATINUM	90.00
SCULPT 3DXL	99.00
SCULPT/ANIMATE 4D JR	99.00
SEX VIXENS	24.00
SHANGHAI	28.00
SILENT SERVICE	28.00
SINBAD & FALCON	35.00
SKY CHASE	27.00
SLAYGON	28.00
SONIX	49.00
SOUND QUEST	CALL
SOURCE LEVEL DEBUGGER	56.00
SPACE STATION OBLIVION	29.00
SPEEDBALL	24.00
SPELLER BEE	35.00
STARGLIDER II	28.00
STELLAR CONFLICT	28.00
STELLARYX	24.00
STREET CAT	27.00
STRIP POKER II	24.00
STUDIO MAGIC	63.00
SUB BATTLE	27.00
SUPERBACK	48.00
SUPERBASE PERSONAL 2	87.00
SUPERBASE PRO	207.00
SUPERPLAN	99.00
SUPERSTAR ICE HOCKEY	35.00
SWORD OF SODAN	30.00
SYNTHIA	69.00
TARGIS	24.00
TAX BREAK	48.00
TECNOCOP	29.00
TELEGAMES	22.00
TELEWARS	28.00
TERRORPODS	28.00
TEST DRIVE II	27.00
TEXTPRO	53.00
THE ACCOUNTANT	190.00
THE THREE STOOGES	35.00
THE WORKS PLATINUM	178.00
THEXDER	26.00
THUNDERBLADE	30.00
TIME AND MAGIK	26.00
TITAN	27.00
TRACER	22.00
TURBO SILVER	115.00
TV SPORTS FOOTBALL	29.00
ULTIMA IV	41.00
UNINVITED	35.00
UNIV. MILITARY SIM.	30.00
V.I.P.	30.00



CALIFORNIA ACCESS CA-880
NEW LOW PRICE
$139.00

VIDEO EFFECTS 3D	130.00
VIDEO TITLER	88.00
VORTEX	24.00
WAYNE GRETZKY HOCKEY	30.00
WORDPERFECT	145.00
WORLD CLASS LEADER BD	28.00
WORLD TROPHY SOCCER	30.00
X-CAD DESIGNER	90.00

Super Special
A501 CLONE
$119.00
512K MEMORY
With Clock/ Calendar

HARDWARE

8 UP 0K	179.00
8 UP W/2 MEG	489.00
8 UP W/4 MEG	CALL
8 UP W/6 MEG	CALL
8 UP W/8 MEG	CALL
ADAPTEC 4000	126.00
ADAPTEC 4070	170.00
AIR DRIVE EXT.	149.00
AIR DRIVE INT.	139.95
AMIGEN GENLOCK	156.00
APRODRAW 12 X 12	480.00
C LTD REPLMNT KYBD	98.00
C LTD HARD DRIVES	CALL
CALIFORNIA ACCESS	149.00
C LTD KRONOS SCSI	CALL
C LTD SCSI 500	156.00
C LTD SCSI 1000	180.00
C LTD SCSI 2000	119.00
CM 20 MEG A500/A1000	639.00
CM 20 MEG A2000	539.00
CM 40 MEG A500/A1000	799.00
CM 40 MEG A2000	749.00
CM 65 MEG A500/A1000	879.00
CM 65 MEG A2000	799.00
CM 85 MEG A500/A1000	850.00
CS-1 COPY STAND	62.00
CVIEW 1	35.00
CVIEW 2	35.00
DELUXE MIDI INTFCE	63.00
DIGI-DROID	62.00
DIGI-VIEW 3.0	139.00
DIGI-VIEW GOLD	139.00
ECE MIDI	50.00
EPYX 500 XJ JOYSTK	14.00
ERGOSTICK JOYSTK	18.00
FLICKER FIXER	510.00
FLICKER MASTER	12.00
FRAMEGRABBER	529.00
FUTURE SOUND	136.00
FUTURE SOUND 500	99.00
GEN ONE GENLOCK	699.00
GO 64	24.00
GO 64 INTERFACE CABLE	15.00
GVP 68030 BOARD	CALL
GVP 68030 W/68882	CALL
GVP 68030 W/4 MEG	CALL
GVP 20 MEG HARDCARD	575.00
GVP 30 MEG HARDCARD	698.00
GVP 45 MEG HARDCARD	816.00
GVP AUTOBOOT EPROM KIT	29.00
GVP IMPACT A500	CALL
GVP A500 RAM MODULE	66.00
GVP SCSI/RAM A2000 0K 1M	294.00
GVP SCSI/RAM A2000 0K 2M	324.00
GVP SCSI/RAM A2000 2M	564.00
HARDFRAME 2000	257.00
HD-6A HARD DRIVE CASE	125.00
INBOARD 0K A1000	216.00
INBOARD 512K A1000	299.00
INBOARD 1 MEG A1000	349.00
INBOARD 1.5 MEG A1000	439.00
INBOARD 0K A500	239.00
INBOARD 1 MEG A500	349.00
INBOARD 2 MEG A500	489.00
MEGABOARD 2000 1 MEG	359.00
MEGABOARD 2000 2 MEG	479.00
MIDI GOLD A500	58.00
MIDI INSIDER A2000	65.00
MIDI STAR	216.00
MODEM CABLE A1000	15.00
MODEM CABLE A500/A2000	15.00
MOUSE MASTER	27.00
MOUSE PADS	9.00
NEC PINWRITER 2200	379.00
PERFECT SOUND	66.00

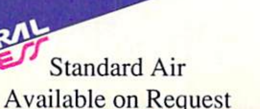
NEW MW 738
A500 POWER SUPPLY
$81.00

PERFECT VISION	189.00
PRO GEN GENLOCK	384.00
PRORAM 8 MEG W/2 MEG	489.00
SCSI CABLES	25.00
SEAGATE ST157N 48 MEG	439.00
SEAGATE ST225N 20 MEG	345.00
SEAGATE ST251N 40 MEG	440.00
SEAGATE ST277N 65 MEG	510.00
SEAGATE ST138N 30 MEG	394.00
SEAGATE ST296N 85 MEG	570.00
SPIRIT TECH. A500 512K 0K	44.00
STARDRIVE SCSI CONT.	102.00
SI COLOR SPLITTER	90.00
STARBOARD II 0K	260.00
STARBOARD II 512K	360.00
STARBOARD II 1 MEG	428.00
STARBOARD II 2 MEG	635.00
SUPER GEN GENLOCK	699.00
SUPRA 2400 MODEM	129.00
BRICK A500 POWER	102.00
TIMESAVER	55.00
VD-1 FRAMEGRABBER	920.00
VI-2000RF	78.00
VI-500RF	78.00
WV-1410 W/LENS,CABLE	238.00
X-SPECS 3D	94.00

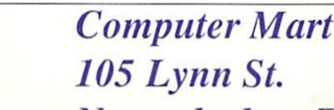
Spirit Technology
A500 & A1000 Memory Expanison

Inboard 512K	$299.00
Inboard 1 meg	$349.00
Inboard 1.5 meg	$439.00
Inboard 2 Meg A500	$489.00

ORDER TOLL FREE 800-44[illegible]-8[illegible]36

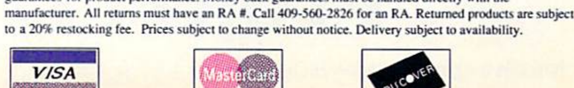


Standard Air
Available on Request
Circle 69 on Reader Service card.



Computer Mart
105 Lynn St.
Nacogdoches, TX 75961
INFORMATION: 409-560-2826

SHIPPING INFO: Software rates are $2.10/item (Max8.00) UPS Ground or $4.00/item (Max 14.00) UPS 2nd Day Air. Call for Hardware shipping info. REFUND & RETURN POLICY: Defective merchandise under warranty will be repaired or replaced. Returned product must be in original packaging. We do not offer refunds for defective products or for products that do not perform satisfactorily. We make no guarantees for product performance. Money back guarantees must be handled directly with the manufacturer. All returns must have an RA #. Call 409-560-2826 for an RA. Returned products are subject to a 20% restocking fee. Prices subject to change without notice. Delivery subject to availability.







Engine), you can design sophisticated multitasking calculators, add programs to them and produce graphs with them, using the ultimate desktop accessory—your Amiga.

I.C.E.'s two program modules are Constructor, with which you create custom calculations, and Install, which adds a calculator to the Amiga's environment. The package includes four ready-to-use number crunchers: one trigonometric, one scientific, a programmer's calculator, and a general-purpose machine.

What most differentiates I.C.E.'s utilities from other disk-based calculators is Install, which makes your calculators always available: You simply press the Right Amiga and Enter keys to summon them to the foreground. I.C.E. calculators are not programs themselves, but data files; the Install module, which loads into RAM, reads the data to emulate a calculator. Install uses very few CPU cycles, and thus has minimal effect on other memory-resident programs.

All I.C.E. calculators run from both the CLI and Workbench. From Workbench, Install works behind the scenes; from the CLI you must specify the source disk and directory of the Install command and the calculator file. I.C.E. is non-copy-protected and can be copied to both floppy and hard disks; you can easily add calculators to your startup-sequence and activate them on boot up.

BUTTON BY BUTTON

Creating calculators is a quick and easy process. Double clicking the Constructor icon takes you to the Button screen. While this display offers over 50 calculator keys, the range of options is actually larger because some buttons have multiple functions. By pressing ALT on your keyboard, you can cycle through four function-key displays, one of which is completely user definable. Selecting a button is as simple as clicking on it. (You can select a group of keys as well, by drawing a box around them.) Using front to back gadgets, you move from the Button display to the Slate screen, where you assemble your calculator. On the Slate screen, the selected button (or box) appears attached to the pointer; another mouse click pastes it in place.

Once you have created the keypad, you draw a box to determine the length of the single-line input/output display. A menu option lets you redirect output to a disk file (so you can use it with another program) or to a printer.

A bonus feature of I.C.E. is its ability to display data graphically. With Plot, you can graph the results of a function in I.C.E.'s plotting window; SPlot has the added capability of drawing a "best fit" line through the data. While these functions are somewhat useful from the calculator keypad, they come into their own through I.C.E.'s programming option.

With I.C.E.'s editor, you can write fairly complex programs, load them into a calculator, and execute them by selecting a menu option or by pressing a key. The syntax is simple—somewhat like BASIC or C, but not as extensive. Variables can be 32 characters long, and there are no line numbers to bother with. Branching (using GOTO or GOSUB) is accomplished using descriptive labels, and only one control statement (IF. . .THEN) is available. You can use dozens of calculator functions in your programs, but input and output are limited to the PRINT statement. ►

Circle 128 on Reader Service card.

I.C.E. is not the type of program that makes your pulse race, but it accomplishes its purpose in an almost elegant manner. It is very easy to learn and use. While the ready-to-use calculators may be all you ever need, extra functions make I.C.E. adaptable to many tasks. Unfortunately, I.C.E. is overpriced. I would rather buy a standard programmable calculator.

I.C.E.
King Publishing
921 32nd St.
Sioux City, IA 51105
712/252-4604
$89.95
No special requirements.

FINDEX V

As you like it.

By Loren Lovhaug

THE ALLURE OF computerized data management springs from the power it gives you to enter, store, and retrieve data quickly and easily. Findex V attempts to achieve this goal through a free-form approach. Instead of entering data into defined fields of given sizes and types, you key it onto an 80-character by 60-line page in any format you desire. In fact, your data's format can vary from page to page.

To recover data from Findex, you simply specify a word or group of characters. Findex searches the pages for a non-case-sensitive match. Findex can also do criteria searches based on the Boolean logic and comparison operators (AND, NOT, OR, < >, and so on). Because of Findex's free-form nature, these searches are slower and generally less powerful than the sophisticated field-based query facilities of other Amiga database programs. While its line-search option speeds the process by scanning only designated lines on each page, Findex is still the slowest commercial Amiga database I have used. The program is also limited by its provision for holding all records in memory and its fixed buffer space (approximately 256K). These factors indicate that Findex is best suited for casual, limited, or non-traditional applications.

SHAPE IT UP

Findex V's programmable forms-generation facility lets you create customized letters, invoice forms, and so on. To set up a form, you enter text as usual and then insert bracketed commands. Commands can copy data from a record line onto the form, accept user input at specific locations, perform very primitive looping, retrieve pages sequentially either forward or backward, insert the current date, perform limited totalling, and control printer attributes by sending non-printing ASCII codes directly to a printer. While I applaud the programmability, Findex's embedded-command approach is cumbersome and far less useful than more traditional methods.

When you invoke Findex's sort mechanism, the program asks you to declare a single line on your page as the sort criterion. This means that multilevel sorts are unwieldy. For instance, to sort by zip code, last name, and first name, in that order, you would have to make certain that one line within every record con- ►

tained a zip code, last name, and first name—in that order. Setting each record up this way takes a great deal of effort, and offsets the benefits of the free-form structure.

As a sort is performed, all record pages are re-sequenced. The only method for maintaining alternate record sequences is to save the entire file under a different name after every sort, and then manually update all as needed.

Port in a Storm

Findex V was originally developed for Timex/Sinclair microcomputers and then was ported to MS-DOS and Atari ST systems. Finally, the software was ported to the Amiga. The manual, however, was not. It describes how to use Findex on Atari ST and MS-DOS machines, and includes an insert of "special instructions for Amiga versions." Although the program functions almost identically to the MS-DOS version, there is no excuse for not producing an Amiga manual.

Like the manual, the program disregards the Amiga environment. It boots on the Workbench screen and does not provide front, back, or window-sizing gadgets. Although Findex does not preclude multitasking, without such gadgets, you can access only applications that use custom screens, by flipping through them with the left-Amiga M and left-Amiga N key combinations.

Findex V's heritage also affects its command interface adversely. The program is controlled through a series of four-letter mnemonic commands. You can type these sequences in at the command prompt or, in one of the few conciliations to the Amiga environment, you can click on the commands listed in a terse help window. While this mouse support may be a step toward Intuition, it is clumsy to use. Only nine of the 27 commands are displayed in the help window at a time, and once you have clicked on a command, you must return to the keyboard to select a suboption.

The program's Record/Forms editor also has limited mouse support. While you can place the cursor anywhere on the screen with the mouse, all other operations—including natural candidates for mouse support (such as cut and paste)—require that you use the keyboard.

Roll the Credits

The Formatted-Data-Entry mode, which allows Findex to emulate a field-oriented database, is useful for applications not suited to the free-form environment. Another welcome touch is the definable keyboard tokens (macros) option. With it, you can assign up to 16 characters to keys A through P, and later recall the characters by pressing ALT and the appropriate letter keys.

I wish Findex V's data-management prowess overshadowed its lack of attention to the Amiga environment, but it doesn't. Though the program functions adequately, it does not outperform its competitors in terms of speed, power, flexibility, or ease of use. And because other packages can mimic its free-form nature, I can find no compelling reason to recommend Findex V.

Findex V
E. Arthur Brown Company
3404 Pawnee Dr.
Alexandria, MN 56308
612/762-8847
$49.95
No special requirements. ■

WHAT'S NEW?

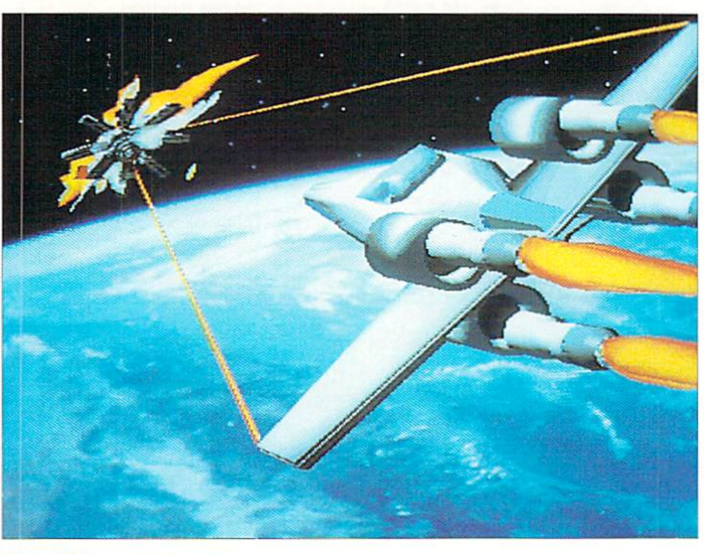
There's much to be thankful for this month—

roll up your sleeves and dig in . . .

Compiled by Jan Jackson

SPACEY

LIVEN YOUR ANIMATIONS with 3-D futuristic spacecraft drawings. The **Starships 2050 Model Library** ($39.95 for three-disk set) contains moon bases, fighter craft, probes, satellites, and weapons machinery plus digitized NASA photographs of our solar system for backgrounds. You can use these renderings with either Byte by Byte's Sculpt-Animate series or Impulse's Turbo Silver. Take to the stars by calling Polar Arts, 14145 Janna Way, Sylmar, CA 91342, 818/362-8565. *Reader service number 511.*



Out-of-this-world images.

CROSSOVERS

READ AND WRITE 360K and 720K MS-DOS-, PC-DOS-, or Atari ST-formatted disks directly from AmigaDOS with **CrossDos** ($30) file system. CrossDos works with standard Amiga hardware. With it, you can create directories, set file/directory dates, seek file positions, and allocate cache buffers. To broaden your focus, call Consultron, 11280 Parkview, Plymouth, MI 48170, 313/459-7271. *Reader service number 508.*

SIMULTANEOUS

CONTROL SOUND, graphics, and text in your multi-media presentations with **UltraCard** ($50). UltraCard can make any portion of your screen a "hot spot." By clicking on this spot with your mouse, you can play a sound, display information, or run other programs. UltraCard supports PAL and NTSC modes, ARexx, and hypertext. Contact Intuitive Technologies, 2700 Garden Rd., Suite 6, Monterey, CA 93940, 408/646-9147. *Reader service number 504.*

HARMONIOUS COEXISTENCE

OPERATE YOUR flickerFixer and external NTSC genlocks simultaneously in an A2000 with the **flickerFixer Genlock Compatibility Option** ($50). Your system can generate high-quality VGA-comptible display while genlocking an NTSC signal because the module mounts onto the flickerFixer board and not in an expansion slot. To bring harmony to your workstation, contact MicroWay, PO Box 79, Kingston, MA 02364, 508/746-7341. *Reader service number 505.*

GEOGRAPHER'S CORNER

YOU CAN VIEW the terrain of any area of the continental US with **Digital Landscape** ($124.95). The program produces hi-res 3-D wire-frame renderings and color-coded contour maps. You can adjust the line intervals to see more or less detail on your maps and scale and rotate the wire-frame models 360 degrees. Saving the renderings as IFF files enables you to load them into other programs to add text, rivers, forests, highways, cities, and so on. Chart a course toward Digiscape Software, PO Box 113058, Carrollton, TX 75011-3058, 214/241-9891. *Reader service number 514.*

HOUSE OF CARDS

TREAT SCREEN FLICKER in your Multisync monitor with **Flick-Off**. The unit plugs into the Denise socket and uses the Amiga D/A converter and video output. A shrink option lets you fit two non-interlaced screens together on one interlaced display.

Maximegs supplies your A500 with fast RAM, chip RAM, and a battery-backed clock. No matter which configuration you choose (512K, 1MB, 1.5MB, or 1.8MB), with a super Agnus chip, your machine will recognize the first 512K as chip RAM. The remainder is used as slow RAM. For pricing and more information on Maximegs or Flick-off, contact M.A.S.T., 3881-E Benatar Way, Chico, CA 95928, 916/342-6278. *Reader service number 510.* ►

AMW 11-89

Order Toll Free 800-558-0003

Since 1982 **ComputAbility** Consumer Electronics

Order Toll Free 800-558-0003

IVS Trumpcard Hard Drive Packages for A2000 Series

Seagate

ST-157N 49 MEG	519 DEL
ST-177N 60 MEG	749 DEL
ST-277N-1 60 MEG	619 DEL
ST-296N 80 MEG	649 DEL

Quantum Pro Drive

40 MEG SCSI Pro Drive	629 DEL
80 MEG SCSI Pro Drive	949 DEL
100 MEG SCSI Pro Drive	1029 DEL

these kits include IVS Trumpcard SCSI hard drive ctrl, cable, software and FREE delivery in the contiguous USA. This is not an assembly kit ! It is a package.

Hard Drive Cards (A-2000)

Seagate

ST-157N 49 MEG	539 DEL
ST-177N 60 MEG	769 DEL

Quantum Pro Drive

40 MEG SCSI Pro Drive	649 DEL
80 MEG SCSI Pro Drive	969 DEL
100 MEG SCSI Pro Drive	1049 DEL

these cards include IVS Trumpcard ctrlr, mounting brkt, cbl, software, and FREE delivery in the contiguous USA.

IVS INFINIT 40

Removable Media Cartridge Drive Packages

INFINIT40/I	1199
INFINIT40S *	1299
INFINIT40D *	1399

* Requires Trumpcard or Trumpcard 500

Trumpcard 500 Hard Drive Packages for Amiga 500

Seagate

ST-157N-49 Meg	579 Delivered!
ST-177N-60 Meg	799 Delivered!

Quantum Pro Drive

40 Meg SCSI Pro Drive -	679 DELIVERED
80 Meg SCSI Pro Drive -	999 DELIVERED
100 Meg SCSI Pro Drive -	1079 DELIVERED

These Packages include Trumpcard 500 enclosure, IVS Trumpcard SCSI hd drive Ctrl, Software & free delivery in the contiguous USA

Trumpcard 500 Ram Expander available - 512k • 1 MEG • 2 MEG • 4 MEG

Seagate SUPER SALE

ST-125N 20 Meg - SCSI	279
ST-157N 49 Meg - SCSI	349
ST-177N 60 Meg - SCSI	569
ST-225N 20 Meg - SCSI	265
ST-251N 40 Meg - SCSI	375
ST-277N-1 60 Meg - SCSI	449
ST-296N 80 Meg - SCSI	479

Quantum

Pro Drives

40 Meg SCSI Pro Drive	529
80 Meg SCSI Pro Drive	899
100 Meg SCSI Pro Drive	929

XETEC Fast Card

Hard Drive Packages for Amiga 2000

Seagate

ST-157N-49 Meg	519 Del
ST-177N-60 Meg	749 Del

Quantum Pro Drive

40 Meg SCSI Pro Drive	629 DEL
80 Meg SCSI Pro Drive	949 DEL
100 Meg SCSI Pro Drive	1029 DEL

Card features Xetec's DMAx hard, autoboot ROM, autoconfig circuitry.. 25 pin SCSI conn., disk, utilities manual.

FREE DELIVERY IN THE CONTIGUOUS 48 STATES

XETEC Fast Card System

Hard Drive Packages for Amiga 500

Seagate

ST-157N-49 Meg	699 Del
ST-177N-60 Meg	919 Del

Quantum Pro Drive

40 Meg SCSI Pro Drive	819 DEL
80 Meg SCSI Pro Drive	1139 DEL
100 Meg SCSI Pro Drive	1219 DEL

System includes Adaptor with autoboot ROM, enclosure, manual, Fast Trak disk with utilities & shielded SCSI cable. With power supply and fan

FREE DELIVERY IN THE CONTIGUOUS 48 STATES



MASTER 3A Disk Drive

1010 Compatible **$125**

*Free Delivery to the Contiguous States

VIDEO PACKAGE

PANASONIC 1410 CAMERA
16MM LENS WITH VARIABLE IRIS
COPYSTAND WITH LIGHTS
DIGIVIEW GOLD
$419 DELIVERED!

PRINTERS

Panasonic 1180 NEW NEW NEW	185
Panasonic 1191 NEW NEW NEW	CALL
Panasonic 1124 NEW 24 Pin	299
Star NX-1000	159
Star NX-1000 Multi Font 2 NEW NEW NEW	179
Star NX-1000 Rainbow (color)	219
Star NX-2400	275

Modems

Amiga 1680 Modem	99
Avatex 1200E	69
Avatex 2400	139
Avatex 2400E	109
Avatex 9600 External NEW!	839
Supra 2400zi Internal (A2000)	139

Supra 2400 Ext. Modem & Cable

• $125 •

FREE DELIVERY to the 48 Contiguous States

AMIGA SOFTWARE

Title	Price
1943	25.95
3D Options	31.95
3D Pool	22.95
4th and Inches	28.95
A-Talk 3	64.95
Action Fighter	24.95
Advantage, The	114.95
Adventures of Sinbad	28.95
After Burner	31.95
Alien Syndrome	24.95
Alternate Reality : City	26.95
AmigaDOS ToolBox	38.95
Animation Sound Track	69.95
Animation Titler	48.95
Animagic	58.95
Anim 4-D Jr.	87.95
Anim. Editor	39.95
Animator (Aegis)	81.95
Animator Apprentice	174.95
Annals of Rome	23.95
Archipelagos	23.95
Architectural Design Disk	22.95
Arexx	28.95
Arkanoids	17.95
Aunt Artic Adven.	25.95
Artura	25.95
Attack on London	22.95
Award Maker	29.95
Awesome Arcade Pack	32.95
Axe of Rage	31.95
B.A.D.	29.95
Baal	19.95
Bad Dudes	28.95
Balance of Power 1990	31.95
Bar Games	28.95
Bard's Tale	31.95
Hint Disk	15.95
Bards Tale II	38.95
Batman	28.95
Battle Chess	29.95
Battle Hawks 1942	31.95
Battletech:The Cr Hk Inc.	31.95
Baud Bandit	30.95
Berzerk 3	22.95
Beyond Dark Castle	21.95
Black Jack Academy	24.95
Blasteroids	CALL
Blood Money	25.95
Blue Angels	28.95
Boomeraid	25.95
Bride of the Robot	24.95
Broadcast Titler	184.95
Bubble Bobble	22.95
Calamus	274.95
California Games	31.95
Calligrapher	72.95
Can Do	84.95
Captain Blood	31.95
Captain Fizz	19.95
Carmen SanDiego/ Time	28.95
Carmen SanDiego/ USA	31.95
Centerfold Squares	18.95
Chessmaster 2000	28.95
Chessmaster 2100	31.95
Chronoquest	32.95
Clue Master Detective	25.95
Colony	31.95
Combat Course	25.95
Comic Setter	59.95
Comic Art Disks (each)	20.95
Contra	25.95
Crazy Cars	24.95
Cribbage King/Gin King	38.95
Crystal Clear Turbo	17.95
Curse Buster	19.95
Cyber Complex	21.95
Daily Double Horse Racing	19.95
Dark Side	24.95
Data Retrieve Pro	179.95
Data Storm	24.95
Deathbringer	24.95
Defender Of The Crown	31.95
Deja Vu: 1 or 2	31.95
Deluxe Music Constr 2.0	61.95
Deluxe Paint III	97.95
Deluxe PhotoLab	97.95
Deluxe Print II	51.95
Deluxe Productions	128.95
Deluxe Video III	96.95
Deluxe Video V1.2	84.95
Demon's Winter	26.95
Denaris	24.95
Design 3D	59.95
Designasaurus	30.95
Devon Aire Diamond Caper	31.95
Digidroid	59.95
Digipaint3.0	64.95
Digiview Gold	124.95
Digiwork 3D	82.95
Dino Wars	CALL
Dinosaur Discovery Kit	25.95
Disk 2 Disk	28.95
Disk Master	28.95
Disk Mechanic	54.95
Dos 2 Dos	31.95
Double Dragon	25.95
Doug's Math Aquarium	46.95
Dr. Doom's Revenge	28.95
Dragon Force	31.95
Dragon's Lair	33.95
Dragon's Lair II	CALL
Draw A-2000	159.95
Dungeon Master	24.95
Dungeon Quest	31.95
Dunlap Utilities	47.95
Dynamic Drums	46.95
Earl Weaver Baseball	31.95
Commissioners Disk	14.95
MLBPA Stats	14.95
Elan Performer	35.95
Eliminator	22.95
Empire	31.95
Excellence 1 Meg	158.95
Exolon	22.95
Express Paint 3.0	79.95
Eye of Horus	24.95
F-19 Stealth Fighter	CALL
F-40 Pursuit Sim.	28.95
FA/18 Interceptor	31.95
Faery Tale Adven	29.95
Falcon	29.95
Operation Counterstrike	16.95
Fantavision	37.95
Fast Break	27.95
Federation	31.95
Ferrari Formula 1	31.95
Fiendish Freddy	31.95
Fine Print	28.95
Fire and Forget	24.95
Fire Zone	22.95
Flight Simulator II	31.95
European Scenery Dsk	19.95
Flow	59.95
Focus Video	107.95
Forgotten Worlds	24.95
Formation	44.95
Fright Night	24.95
Front Page	74.95
Future Design Disk	22.95
Future Sound 500	89.95
Galactic Conqueror	28.95
Games : Winter Ed	31.95
Gauntlet II	31.95
Gettysburg	38.95
GFA Basic 3.0	87.95
Gladiator	25.95
Gold of the Realm	24.95
Golds of the Americas	26.95
Gold Runner 2	24.95
Gold Rush	24.95
Grand Prix Circuit	27.95
Gunship	35.95
Halls of Montezuma	26.95
Hardball	28.95
Hardball II	28.95
Harley Davidson	31.95
Harpoon	25.95
Harrier Combat Simulator	31.95
Heat Wave	28.95
Heavy Metal	28.95
Heros of the Lance	25.95
Hillsfar	31.95
Hole In One	21.95
Hole In One - Course Disk	13.95
Hostage	29.95
Human Design Disk	22.95
Hunt For Red October	31.95
Hybris	22.95
Hyper Dome	22.95
Indiana Jones-Action Game	26.95
Indiana Jones-Graphic Adv.	31.95
Indoor Sports	30.95
Innovatools 2	48.95
Instant Music	13.95
Inter Font	69.95
Interchange	28.95
IntroCad	46.95
Investors Advantage	59.95
Invision	134.95
It Came From The Desert	31.95
Jack Nicklaus Golf	30.95
JN Courses of 1989	14.95
JN Course Disc II	14.95
Jet	31.95
Jigsaw	30.95
Jinks	18.95
Joan of Arc	28.95
Joe Blade	19.95
Journey	31.95
Kampfgruppe	38.95
Karafonts Headlines 1 or 2	44.95
Karafonts Subhead	44.95
Keef the Thief	31.95
Kind Words V2.0	57.95
King Arthur's Quest/Excal.	31.95
King's Quest IV	31.95
Kingdoms of England	26.95
Knights of Legend	31.95
Kristal, The	31.95
Lancelot	26.95
Last Duel	24.95
Last Inca, The	24.95
Leisure Suit Larry	25.95
Leisure Suit Larry II	31.95
Leonardo	25.95
License to Kill	21.95
Life and Death	32.95
Logicworks	184.95
Lords of the Rising Sun	30.95
M2 Amiga	147.95
M2 Amiga Debugger	77.95
Magellan 1.1	114.95
Magic Johnson 512	24.95
Magic Johnson 1 Meg	31.95
Manhunter - New York	31.95
Maniac Mansion	29.95
Mavis Beacon Typing	31.95
Mean 18	27.95
MediaLine Clip Art	21.95
Menace	19.95
Miami Vice	24.95
Michtron Hit Disk #1	32.95
Micro Fiche Filer Plus	114.95
Microbot Design Disk	22.95
Midi Magic	CALL
Midi Rec Studio V1.1	39.95
Midi View	23.95
Might and Magic II	38.95
Mighty Nerds	31.95
Mindroll	19.95
Mixed Up Mother Goose	19.95
Modeler 3D	56.95
Moebius	38.95
Movie Setter	59.95
Music Studio 2.0	49.95
Music X	169.95
My Paint Data Disk	17.95
Netherworld	22.95
Neuromancer	28.95
New York Warriors	CALL
Night Force	28.95
Novelty Fonts	48.95
Nuclear War	32.95
Obliterator	25.95
Off Shore Warrior	24.95
Omega	31.95
Omni Basketball	31.95
Omniplay Baseball: 5 on 5	31.95
On Line Platinum	58.95
Operation Clean Streets	25.95
Operation Wolf	22.95
Optics	117.95
Oswald	23.95
Outrun	31.95
Page Renderer 3-D	94.95
Page Setter	59.95
Page Stream	127.95
Dot Matrix Font1-5 ea.	24.95
Page Thinker	59.95
Pageflipper Plus/FX	87.95
Pen Pal	84.95
Phasar	54.95
Photon Paint 2.0	87.95
Photon Paint Surface	19.95
Photon Video : Cell Anim.	87.95
Photon Video Transport	169.95
Pioneer Plague	25.95
Pixel Script	92.95
Planet of Lust	24.95
Platoon	27.95
Pocket Rockets	25.95
Police Quest 1 OR 2	31.95
Pool of Radiance	31.95
Populous	32.95
Ports of Call	28.95
Postscript Fonts A,B,C. ea.	24.95
Power Windows 2.5	54.95
Powerdrome	26.95
Precisely	48.95
Print Master Plus	24.95
Pro Script	28.95
Pro Soccer	22.95
Pro Sound Design	96.95
Pro Video Gold	174.95
Pro Write 2.5	69.95
Pro-Draw	112.95
Professional Page	228.95
Structured Clip Art	36.95
Templates	36.95
Profonts 1 & 2	21.95
Project D+ Backup	30.95
Project Master	129.95
Prospector Mazes of Zor	25.95
Pub Games	25.95
Publisher's Choice	114.95
Purple Saturn	19.95
Puzzle Storybook	25.95
Quick Silver	41.95
Qix	22.95
Quarter Back	42.95
Questron II	32.95
Rambo III	22.95
Rampage	24.95
Rastan	25.95
Raw Copy	34.95
Red Lightning	38.95
Reel Fish'n	29.95
Renegade	22.95
Return To Atlantis	13.95
Revenge of Defender	21.95
Rhyming Notebook	31.95
Rick Dangerous	31.95
Rick Davis Soccer 1 Meg	29.95
Rick Davis Soccer 512K	24.95
Ring Side	24.95
Ringling Bro's Circus	24.95
Road Challenge	24.95
Road Raider	24.95
Roadwar 2000	26.95
Robocop	28.95
Rock Challenge	25.95
Rocket Ranger	31.95
Roger Rabbit	28.95
Romantic Enct @ Dome	25.95
Rubicon Alliance	20.95
RVF Honda	24.95
Savage	22.95
Scavenger	CALL
Scrabble	26.95
Scribble Platinum	87.95
Securities Analyst	49.95
Sex Vixens-Outer Space	22.95
Shadowgate	31.95
Shinobi	31.95
Shogun	31.95
Shufflepuck Cafe	24.95
Side Arms	24.95
Silent Service	24.95
Sim City	28.95
Skate Wars	31.95
Sky Blaster	18.95
Sky Chase	24.95
Sky Fox II	13.95
Sky Shark	22.95
Slipped Stream	17.95
Softwood File II	62.95
Sorceror Lord	23.95
Space Harrier	31.95
Space Quest 1 or 2	31.95
Space Quest 3	CALL
Space Racer	19.95
Speedball	24.95
Spinworld	18.95
Star Command	31.95
Star Ray	29.95
Star Trek The Final Front.	36.95
Star Wars	24.95
Stellar Crusade	36.95
Street Fighter	25.95
Strip Poker II	23.95
Studio Magic	59.95
Sub Battle Sim	14.95
Super Back	48.95
Super Star Basketball	CALL
Superbase Personal	46.95
Superbase Personal 2	87.95
SuperBase Pro 3.0	189.95
Superplan	87.95
Superstar Ice Hockey	31.95
Sword of Sodan	28.95
Swords of Twilight	32.95
T.V. Sports Basketball	30.95
T.V. Sports Football	30.95
Talespin	31.95
Tanglewood	24.95
Technocop	31.95
Temple of Doom	31.95
Tetraquest	24.95
Tetris	20.95
Text Ed Plus	48.95
Test Drive 2 - The Duel	27.95
California Chall.	14.95
European Chall.	14.95
Supercars	14.95
Thexder	22.95
Their Finest Hour: Britain	38.95
Thinker	57.95
Third Courier	28.95
Three Demon	69.95
Thunder Blade	29.95
Time and Magik	26.95
Times of Lore	24.95
Titan	28.95
Tom & Jerry	CALL
Tower Toppler	31.95
Tracers	22.95
Transcripts	41.95
Trials of Honor	32.95
Turbo	15.95
Turbo Silver 3.0 1 Meg	112.95
TV Show	64.95
TV Text	64.95
Twilight Zone	24.95
Twilight's Ransom	19.95
Ultima 4	38.95
Ultima III	24.95
Undersea Comando	31.95
Universe 3	31.95
Vampire's Empire	28.95
Video Effects 3-D	113.95
Video Fonts	28.95
Video Page Titler	86.95
Video Titler	84.95
VideoScape 3D 2.0	115.95
Interior Design	22.95
Vindicators	CALL
VIP Professional	59.95
Virus Infection Protection	28.95
Vista 3-D	87.95
VTX Online	51.95
W Shell	28.95
War In Middle Earth	29.95
Wayne Gretzky Hockey	29.95
Weird Dreams	24.95
Who, What, When	64.95
Willow	25.95
Wind Walker	25.95
Wings Of Fury	25.95
Works Platinum, The	CALL
World Atlas	35.95
World Class Leader Board	28.95
World Tour Golf	13.95
X-Specs	84.95
Zak McKracken	29.95
Zany Golf	26.95
Zoetrope	82.95
Zork Zero	38.95
Zynaps	22.95

MISCELLANEOUS HARDWARE

AMI GEN	$135
SUPER GEN	$669
SUPER GEN 2000S INT GENLOCK	$1449
MAGNI 4004 GEN LOCK	$1389
FLICKER FIXER	$455
PERFECT SOUND	$69
CHINON FS 354 INT. DR.	$99
COLOR SPLITTER	$89
GOLD DISK SCANNER	$899
IMG SCAN	$105
SCAN LOCK	$819
GVP 68030 ACC. BD	CALL

VISA MasterCard

NO CREDIT CARD SURCHARGE

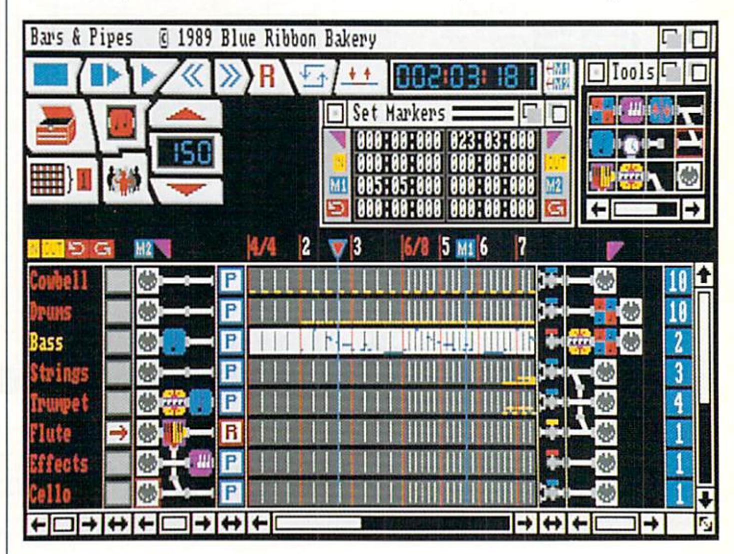
WI ORDERS AND INFORMATION
414-357-8181 FAX 414-357-7814
P.O. BOX 17882 Milwaukee, WI 53217

ORDERING INFORMATION: Specify system. For fast delivery send cashier's check or money order. Personal and company checks allow 14 business days to clear. School P.O.'s welcome. C.O.D. charges are $4.00. In Continental U.S.A. include $3.00 for software orders 5% shipping for hardware, minimum $5.00. MasterCard and Visa orders please include card #, expiration date and signature. WI residents please include 5% sales tax. HI, AK, FPO, APO, Puerto Rico and Canadian orders, please add 6% shipping, minimum $6.00. All other foreign orders add 15% shipping, minimum $15.00. All orders shipped outside the Continental U.S.A. are shipped first class insured U.S. mail. If foreign shipping charges exceed the minimum amount, you will be charged the additional amount. All goods are new and include factory warranty. We do not guarantee compatability & version #s. Due to our low prices all sales are final. All Defective returns must have a return authorization number. Please call (414) 357-8181 to obtain an R.A. # or your return will not be accepted. Prices and availability subject to change without notice. Shipping and handling are non-refundable. We ship the latest versions available to us, updates must be handled by end user directly with the manufacturer.

Circle 148 on Reader Service card.

Carrying Tunes

BARS & PIPES, an object-oriented musical composition system, helps you guide your musical input from conception to performance. The package consists of four elements. Within the Pipeline module, you arrange pipe-and-valve graphics (each pipeline represents one track) to determine the flow of your input. In the Toolbox, you will find icons for a note splitter, transposer, and other tools. Click these icons and place them on individual pipes in any order to modify the information that flows through them. You can record any number of tracks in the Sequencer, and then fine tune your scores with the Editor. You can edit key, rhythm, and chord-change information for algorithmic compositions and hear each note as you alter it. Call Blue Ribbon Bakery, 1248 Clairmont Rd., Suite 3D, Atlanta, GA 30030, 404/377-1514. *Reader service number 512.*



Musical plumbing.

For musicians with MIDI connection problems and limited space and funds, the compact **Pelican MIDI Processor** ($149) might be a viable solution. The unit features a channel and event-processor for each of two MIDI inputs, MIDI merging, two independent processors, universal-channel changing, event filtering, selectable auxiliary MIDI output, and programmable battery-backed memory. Get the details from Future Music, Box 1090, Reno, NV 89504, 702/826-6434. *Reader service number 515.*

A "dynamic riff sequencer," **Hyperchord** lets you manipulate sequences of 40 notes or less (riffs) by varying rhythm, pitch, and order in real time. In Design mode, you can create riffs and variations of them using functions such as smear, rotate, weave, reverse, and mix. Plat mode lets you improvise and loop riffs in the bank provided. To create larger musical movements, simply string your sequences together.

On the lighter side, **Pixound** provides an unusual diversion—a musical screen interpreter. Load any graphic into the program, and Pixound translates the red, green, and blue content of each pixel into chords. Then, simply move your mouse cursor

across the screen to hear what you see. Both Pixound and Hyperchord use MIDI in addition to the Amiga's internal voices. For artistic motivation, call Hologramophone Research, 331 E. 14th St., Suite 4B, New York, NY 10009, 212/529-8845. *Reader service number 513.*

WITH DESIGN IN MIND

THE ORIGINAL developer of X-CAD, Cadvision International, regained control of the product and has now produced a streamlined version. In addition to a revised interface, **X-CAD Designer** ($149.95) features architectural, electrical, electronic, or mechanical symbol libraries. External file formats supported include AutoCAD DXF, IFF, and Aegis Draw Plus. To get back to the drawing board, contact American Software Distributors, RR 1 Box 290, Bldg. 30, Urbana, IL 61801, 217/643-2050, or in the UK: Cadvision International, London, England, 1-602-2627. *Reader service number 506.*

DataPlot lets you turn ordinary numeric data into graphs of various sizes. The program accepts ASCII files generated by other programs and plots them onto your screen or, with its print option, onto paper. You can label your charts with scale information and other text in file as text strings. Bytes and Bullets can fill you in on details: Rt. 3 Box 3532, Manchester, TN 37355, 615/596-2077. *Reader service number 507.*

PERIODICALS

GETTING YOU INTO print via desktop publishing is **Saxon Publisher's** intent with features like professional four-color separations, bitmapped textures on text, and structured drawings. For $445 you get EPS support, vertical justification, and drop caps. If this package suits your style, contact Saxon Industries, 14 Rockcress Gardens, Nepean, Ontario, Canada, K2G 5A8, 613/226-2355. *Reader service number 502.*

Professional Page V1.3 ($395 US), the latest version of Gold Disk's desktop-publishing package, includes Compugraphic outline-font technology supporting dot matrix, inkjet, and LaserJet compatible printers. The program's proprietary font-caching scheme allows on-screen character representations at any point size.

In addition, Gold Disk is offering two-supplementary products both retailing at $59.95 for use with Pro Page. The **Professional Page Templates and Design Guide** contains over 50 configured templates on disk and a manual with design and layout tips. Preset type specifications include typeface, size, style, justification, and text run-around. The **Structured ClipArt** package includes graphics for a variety of topics: sports, holidays, maps, food, and basic symbols. For full-page coverage, contact Gold Disk, PO Box 789, Streetsville, Mississauga, Ontario, Canada, L5M 2C2. *Reader service number 503.* ■

Circle 68 on Reader Service card.

HORS D'OEUVRES

An assortment of tips and techniques from fellow Amiga users.

Compiled by Tim Walsh

WordPerfect Spell Checking

IF YOU USE WordPerfect with one or more megabytes of RAM, you're in for a treat the next time you want to spell check one of your documents.

The Amiga version of WordPerfect is painstakingly slow when performing a spell check, simply because the computer has to access the disk drive to check the spelling of each word. Not only is this inefficient, but it also puts a lot of wear and tear on your disk drive.

Here's a way to copy the spelling checker to RAM to make this process lightning fast. First, enter the following script file on your favorite text editor, such as ED or TextED Plus:

```
CD DF0:
ECHO "Copying LEX.WP to RAM:"
COPY SPELL.THES:LEX.WP
  to RAM:
Path RAM:
CD DF0:
ECHO "Spell checker is now in RAM!"
```

For demonstration purposes, save this file to disk with the filename RAMSPELL. When ready, activate it from the CLI with the following command:

```
EXECUTE RAMSPELL
```

(Since the LEX.WP is quite large (290K), it takes a while to copy to RAM.) Now, activate WordPerfect, load the document to be spell checked, and select the "Spell. . ." option from the Special menu. At the "Enter path to dictionary file:" prompt, enter RAM:LEX.WP and the spell-checking process will proceed as it normally does, except in a fraction of the time and with no floppy-disk access.

When you're finished, the spell checker can be removed from memory by entering DELETE RAM:LEX.WP. The only limitation to this process is that it is not a good idea to run WordPerfect, its accompanying Print program, and my RAM spell checker all at once. Not only does it create unnecessary overhead, but insufficient-memory errors could occur on systems equipped with 1.5MB or less RAM.

Mark Gillman
Winnipeg, Manitoba, Canada

Saving Precious Memory

MINIMIZING MEMORY USAGE is essential when running word processors and other application programs on A500s and A1000s equipped with only 512K. Programs such as excellence! and PageStream won't print on 512K machines. Likewise, even Amigas equipped with one megabyte of RAM occasionally crash or get bogged down when multitasking on memory-intensive programs.

One simple solution is to run your applications with Workbench deactivated, which saves 16880 and 13480 bytes of Fast and Chip memory, respectively. This is enough additional free memory to print with both excellence! and PageStream on 512K machines.

Eliminate Workbench by holding down the CTRL and D keys simultaneously during power-up or after a reset; this will bring up a **BREAK - CLI window. At the prompt, enter CD DF0: or the appropriate drive name that holds the file to be activated and press Return. Next, enter STACK 16000 at the next prompt and press Return again. Finally, enter the name of the file to be activated (e.g., ATALK3, EXCELLENCE!, WP, etc.). The only disadvantage to this process is that all other applications also need to be activated from the CLI until you bring Workbench back to life by either resetting the computer or running the startup-sequence from the CLI.

K. W. Spry
Huntersville, NC

Automatic Amiga Basic Backup

IF YOU'VE EVER lost an Amiga Basic program because you forgot to back it up, here's some unique AmigaDOS 1.3-compatible program-protection insurance. Just add the following lines to the beginning of your BASIC code:

```
version$ = MID$(STR$(CLNG
  (TIMER)),2)
PRINT "Saving as rad:BACKUP";
  version$;
SAVE "rad:backup" + version$
PRINT ". . . done!"
'the program continues here
```

The TIMER command in the first line assigns the filename an incrementing number, to prevent erasing earlier versions of the program already saved. RAD is used in place of RAM as the destination device, because its contents are not as volatile and can survive a warm reboot, which RAM contents cannot.

Mark Kelly
Swan Hill, Victoria, Australia

Editor's note: To configure a RAD disk with the default AmigaDOS 1.3 filename of RAMB0, execute the following from a CLI:

```
MOUNT RAD:
IF NOT EXISTS RAD:c
MAKEDIR RAD:c
COPY C:COPY TO RAD:c
COPY C:DIR TO RAD:c
ENDIF
PATH ADD RAD:c
```

■

M.C.S. WE DON'T CLAIM TO HAVE THE LOWEST PRICES ON AMIGA . . .

3.5 DS/DD 59¢ 100 LOT QTY. 69¢ (10)

WE PROVE IT!
NOBODY BEATS US!
THINK YOU FOUND A GOOD DEAL? OURS WILL BE BETTER!

SUPRA 2400i
$98 OR LOWER!

- Supra 2400 .... 119*
- Supra 2400 ZI 128
- Avatex 2400 E 119*
- Avatex 2400 .... 138*

W/Cable Purchase-Add $10 Alone

512K RAM
A 500
from $129 OR LOWER!

CONTROLLERS
★Hardframe ★Supra ★GVP ★Xetec ★IVS ★C.Ltd
New Low Prices!

HARD DRIVES

Drive Type	Trump 2000	Drive Only	Xetec FC 2000	Xetec FC 500	Trump 500	GVP 2000	GVP 500
3.5 DRIVES							
30MG ST-138N	475 DEL	310	465 DEL	655 DEL	545 DEL	625	750
49MG ST-157N	518 DEL	348	515 DEL	695 DEL	575 DEL	—	—
60MG ST-177N	755 DEL	568	748 DEL	915 DEL	795 DEL	—	—
QUANTUM 40MG	625 DEL	525	625 DEL	825 DEL	675 DEL	780	995
QUANTUM 80MG	945 DEL	895	945 DEL	1135 DEL	995 DEL	1050	1375
QUANTUM 100MG	1025 DEL	925	1025 DEL	1215 DEL	1075 DEL	1150	1475

MISC.

- Gen One 499
- Processor Accelerator .... Call
- Panasonic 1410 185
- Super Gen 670
- CSA Midget racer .... Call
- Sony 3.5 DS/DD .... 12(10)
- Subsystem500/1000 220
- Hardframe 238
- Digiview Gold 128
- Digidroid 62
- Copystand 55
- Mini Gen .... New Low Price
- Image Scanner .... Call
- GVP Systems .... Call
- Frame Grabber 520
- Gold Disk Scanner .... Call
- Amiga Mouse $42
- VI500 Video Interface 59
- Easyl 500/1000/2000 ... from299
- Flicker Fixer 440
- Scanlock $800
- Elec.ColorSpltr 90
- Live 500/1000/2000 .... Call
- Syquest 44 mg .... Call

3.5 EXTERNAL DRIVES
FROM $125

- 3.5 Internal 98
- 3.5 Dual Drive 245
- Amiga 1020 Drive 180

OR LOWER!

- Master 3A
- Flex Data
- Unidrive

STAR $219★ RAINBOW

- NX1000 .... 170*
- Okimate 20 .... Call
- Panasonic 1180 .... 179*
- Panasonic 1124 .... 319*

*W/2 Ribbon Purch-Add $10 alone
OR LOWER!

AMIGA 20MG HD
FROM $499 COMPLETE

- Phoenix
- C Ltd
- Vault
- Xetec
- Supra
- Many More! Call!

PRICED TO MOVE

2 MG RAM
FROM $299 OR LOWER!

- 8-Up Board .... Call
- Starboard 2 0 K 235
- Inboard 0 K 235
- Megaboard 2000 (1mg) 375
- Megaboard 2000 (2mg) 449
- Pro Ram 2000 499

ABACUS
Amiga Dos Tool Box ... $36
Assempro ... $60
Becker Text ... $90
Data Retrieve ... $48
Text Pro ... $48
Disk Drives Inside/Out ... $27
Amiga Tricks & Tips ... $18
Amiga C Adv ... $33
Amiga Dos Inside/Out ... $18
Amiga Machine Lang ... $18
Amiga C for Beginners ... $15
Amiga Sys prog. Guide ... $33
Amiga Basic Inside/Out ... $23
Amiga for Beginners ... $15
Amiga 3D Graphics ... $18
More Tricks & Tips ... $18

ABSOFT
AC/Basic 1.3 ... $117
AC/Fortran ... $180

ACCESS
Leader Board Dual Pk ... $21
World Cls Ldr Board ... $27

ACTIONWARE
Prison ... $24
Capone ... $24
Phaser Gun ... $46
P.O.W. ... $24

ACCOLADE
Super Cars ... $14
Shoot em-up Const. Kit ... $15
Heavy Metal ... $27
California Challenge ... $14
Bubble Ghost ... $21
Famous Courses Vol 2 ... $12
Hard Ball ... $27
★Jack Nicholas Golf ... $30
Mean 18 ... $27
★Test Drive II ... $27

ACTIVISION
Battle Hawks 1942 ... $30

ADDISON-WESLEY
Includes & Auto Docs ... Call

AEGIS
AniMagic ... $60
Audiomaster 2.0 ... $60
Draw 2000 ... $168
Lights Camera Action ... $48
Modeler 3D ... $60
Sonix ... $48
Video Titler ... $50

AMIGA
★1.3 Enhancer ... $20

ANTIC
Design Disks ... $21
Pioneer Plaque ... $24
★Phasar 3.0 ... $60
★Zoetrope ... $84

AROCK COMPUTER SOFTWARE
Masterpiece Pro Fonts ... $150

ARTWORX
World Snooker ... $15
Bridge 5.0 ... $21

Centerfold Squares ... $18
Linkword Languages ... $18
★Strip Poker 2 ... $24

ASDG
FACC II ... $21
Cygnus Ed ... $60

AVANTE GARDE
Benchmark Module 2 ... $120

BAUDVILLE
Award Maker Plus ... $30
Sports Library ... $18

BETHESDA
★Wayne Gretzky Hockey ... $30

BRITANNICA
Jigsaw ... $30
Designasaurus ... $30

BRODERBUND
Archipelagos ... $24
Omniplay Basketball ... 30
Carmen SanDiego World ... $27
★Sim City ... $27
Fantavision ... $36
Star Wars ... $24

BROWN WAGH
Easyledger ... $180
★Pen Pal ... $90

BUENA VISTA
Roger Rabbit ... $27

BYTE BY BYTE
Sculpt Animate 4D ... 390
Sculpt/Animate 4D Jr ... $90

CENTAUR SOFTWARE
World Atlas ... 36
B.A.D. ... $30

CENTRAL COAST
MAC to DOS ... Special
★DOS 2 DOS ... $33
★Quarterback ... $42

CINEMAWARE
Deathbringer ... $24
Darkside ... $24
It came from the desert ... $30
Speedball ... $24
Total Eclipse ... $24
★Kristal ... $30
Federation ... $30
King of Chicago ... $15
★Lords of Rising Sun ... $30
Rocket Ranger ... $30
S.D.I. ... $15
Sinbad ... $15
3 Stooges ... $30
Defender of the Crown ... $30
T.V. Sports Football ... $30

DATA EAST
Bad Dudes ... $27
Rambo III ... $21
Batman ... $27
Robocop ... $30

DIGITEK
Extra Courses ... $12
★Hole 1 Mini Golf ... $24
Vampires Empire ... $27
Hollywood Poker ... $Call

DISCOVERY
Arkanoid ... $20
Arkanoid II ... $Call
Grabbit ... $18
Hybris ... $24
★Sword of Sodan ... $30
V.I.P. ... $30
Zoom ... $18

DR. T MUSIC SOFTWARE
★KCS Level II ... $210
Copyist Pro. 2 ... $168
★K.C.S. ... $150
Midi Recording Studio ... $42

EASEWARE
Home Builders Cad ... $120
Home Builders Ch ... $49

ELAN DESIGN
Invision Req. Live ... $135
Performer ... $36

ELECTRONIC ARTS
Populos Data Disk ... $20
★Demons Winter ... $26
★Populous ... $32
MI BPA Stats ... $14
Lancelot ... $20
Time and Magic ... $26
AAARGH ... $23
Alternate Rlty(city) ... $26
Awesome Arcade Pk ... $32
Bard's Tale ... $32
ChessMaster 2000 ... $29
★Commissioners Disk ... $14
Deluxe Music ... $62
★Deluxe Paint III ... $92
Deluxe Photo Lab ... $92
Deluxe Productions ... $122
Deluxe Video 1 2 ... $80
Double Dragon ... $26
★Earl Weaver ... $32
FA/18 Intercepter ... $32
Ferrari Formula 1 ... $32
Marble Madness ... $32
Master Ninja ... $20
★Mavis Beacon ... $32
Wizard Wars ... $26
Zany Golf ... $26

EMERALD INTELLIGENCE
Magellan 1.1 W/Intf ... $15

EPYX
Revenge of Defender ... $21
Purple Saturn Day ... $24
Project Neptune ... $24
California Games ... $30
Games Winter Edition ... $30
Impossible Mission 2 ... $15
Technocop ... $30
4x4 Road Racing ... $15

FIRST BYTE
★First Letters & Words ... $26
First Shapes ... $26
Kid Talk ... $32
Math Talk ... $32
Math Talk Fractions ... $26
Smoothtalker ... $26

Speller Bee ... $26

FREE SPIRIT
Planet of Lust ... $24
Securities Analyst ... $48
Sex Vixons from Space ... $24

FTL
Koas Strikes Back ... Call
★Dungeon Master ... $24

FULLER COMPUTER
★Project D ... $30

GOLD DISK
Movie Clips ... $21
Comic Setter Data Disks ... $21
Pro Page 1.2 ... $210
Structured Clip Art ... $Call
Transcript ... $42
Pro Page Templates ... $36
Pro Draw Clip Art ... $36
Desk Top Budget ... $42
Design 3D ... $60
★Comic Setter ... $60
★Movie Setter ... $60
Prof Draw ... $120

HARDWIRED
Denaris ... $24
Jinks ... $18

IMPLUSE
Turbo Silver ... $120

INCOGNITO
Optics ... Special
Kingdoms of Englan ... $27

INFOCOM
Journey ... $30
Shogun ... $36
Zork Zero ... $36
Battletech ... $30

INNOVISION
Broadcast Titler ... $180
Video Effects 3D ... $120

INTERPLAY
★Battle Chess ... $30
Neuromancer ... $24

JDK IMAGES
★Pro Video Gold ... $180
Font Libraries ... $78

KARA
Subheads ... $42
★Headlines 2 ... $42
Kara Fonts ... $48

LATTICE
★Lattice 5.0 ... New Price

MANX
Aztec C Developers ... $195
Aztec C Pro ... $130
Library Sources ... $180
Source Level Debugger ... $75

MELBOURNE HOUSE
World Trophy Soccer ... $Call
★War in Middle Earth ... $30
Magic Johnson B-ball ... $30

MICRO DEAL
Amas ... $Special
4 Player Adapt ... $Call
International Soccer ... $24

MICROILLUSIONS
Dr. Plummet ... $21
Turbo ... $18
Black Jack Academy ... $24
Craps Academy ... $24
Data Disks ... $12
Discovery Math or Spell ... $24
Faery Tale ... $30
Photo Vid Cel Animator ... $90
Music X ... $180
★Photon Paint II ... $90

MICROMASTER
★Your Family Tree ... $30

MICROPROSE(Microplay)
Savage ... $24
K.VanEron ProSoccer ... $21
★Gunship ... $36
Silent Service ... $24

MIMETICS
3 Demon ... $68
Pro Midi Studio 1.4 ... $125
Midi Interface ... $48
Sound Sampler ... $80

MINDSCAPE
Gauntlet II ... $30
Thunderblade ... $30
Action Fighter ... $24
Indiana Jones ... $24
Balance/Power 1990 ... $30
Captain Blood ... $30
Combat Course ... $24
Hostage ... 27
Indoor Sports ... $30
Outrun ... $30
Shadowgate ... $30
Space Harrier ... $30
Superstar Ice Hockey ... $30
Uninvited ... $30
Alien Syndrome ... $24
RoadRaider ... $30
Deja Vu II ... $30

MINDWARE
Aunt-Artic Adventure ... $24
Pg Flipper Plus F/X ... $96

MSI
★Raw Copy ... $36

M.S.S.
Online! Platinum ... $60
Excellence ... $150
Scribble Platinum Ed ... $90
Works Platinum Ed ... $177

NEW HORIZONS
Flow ... $60
Postscript ... $30
Pro Fonts 1 or 2 ... $21
Pro Write 2.5 ... $75

NEWTEK
Digi Paint III ... $60
A500 Adapter ... $20
Digidroid ... $62
Digiview 3.0 Upgrade ... $12
★Digiview Gold ... $128

NEW WAVE SOFTWARE
Dynamic Drums ... $48

Dynamic Studio ... $120
Sound Oasis ... $60

OMNITREND
Universe III ... $30
Breach II ... $30
Breach ... $24
Paledin ... $24
Scenerio Disks ... $15

ORIGIN SYSTEMS
Omega ... $30
Times of Lore ... $24
Ultima IV ... $36

OTHER GUYS
Synthia Professional ... 237

OXXI
Nimbus 2.0 ... $96
A-talk 3 ... $60
Maxiplan 500 ... $90
Maxiplan Plus ... $120

PARAGON
Dr. Dooms Revenge ... $27

PRECISION SOFTWARE
SuperBase Personal ... $48
SuperBase Personal II ... $90
SuperBase Pro. 3.0 ... $210
Super Plan ... $90
Pro Sound Designer ... $96

PROGRESSIVE
Dunlap Utilities ... $48
Baud Bandit ... $30
CLI-mate ... $24
Disk Master ... $30
IntroCad ... $48
Mathamation ... $48
Pixmate ... $42

PSYGNOSIS
★Blood Money ... $24
Baal ... $18
Ballistix ... $21
Barbarian ... $24
Captain Fizz ... $18
Chrono-Quest ... $30
Menace ... $18
Obliterator ... $24
Terror Pods ... $24

READY SOFT
A-Max ... $120
Dragon's Lair ... $36

RGB
Deluxe Help ... from $21

RIGHT ANSWERS GROUP
★Director ... $42
Director Tool Kit ... $24

SIERRA
Gold Rush ... $24
Police Quest ... $30
Gold Rush ... $24
Manhunter ... $30
Silpheed ... $21
Leisure Suit Larry II ... $30

SOFTLOGIC
★Page Stream ... $120
Page Stream Fonts ... $24

SOFTWARE VISIONS
Business Designer ... $36
Home Designer ... $24
★MicroFiche Filer Plus ... $108

SPECTRUM HOLOBITE
Falcon Mission Disks ... $15
Solitaire Royal ... $21
★Falcon ... $30
Tetris ... $21

SSI
★Heroes of the Lance ... $26
Kampfgruffe ... $38
Questron 2 ... $32

SUBLOGIC
Flight Simulator II ... $32
Jet ... $32
Scenery Disks ... from $18

SUNRIZE INDUSTIES
Image Scan ... Call
Elctr Color Splitter ... $94

TAITO
Qix ... $21
Rampage ... $24
Bubble Bobble ... $21
★Operation Wolf ... $21
Renegade ... $21

THREE SIXTY INC.
Dark Castle ... $27
Thunder Ridge ... $24

UNICORN
All About America ... $36
All other titles ... $30

UNISON WORLD
Art Glry 1 & 2 Combo ... $24
Art Gallery 1&2 ea ... $18
Fantasy ... $18
Fonts & Borders ... $21
★Printmaster Plus ... $30

VISIONARY DESIGN
Vortex ... $24
Datastorm ... $24

WILLIAM HAWES
★Arexx ... $30
W-Shell ... $30

WORD PERFECT INC.
Library ... $78
Word Perfect ... $150

IMPORTS
Bloodwych ... $33
Postman Pat ... $24
Targham ... $30
Rick Dangerous ... $30
Roll Out ... $21
Black Magic ... $21
Kennedy Approach ... $30
Airborn Ranger ... $30
Leonardo ... $27
F-16 ... $30
Too Many to List ... $Call

IF YOU DON'T SEE IT...CALL

Orders Only: M-F 10-8 Sat 10-6
800-433-7756
In Michigan 313-427-7713

Customer Service 12-5PM EST(M-F)
313-427-0267

FAX 313-427-7766

★ Indicates Top 50 Sellers
No Surcharge for MC/VISA/DISCOVER

M.C.S.

Send Mail Orders To: **MCS.** 12868 Farmington Rd., Livonia, MI 48150

Sorry no walk in traffic. All returns must have RA#. Merchandise found defective will be repaired or replaced. We do not offer refunds for defective products or for products that do not perform satisfactorily. We make no guarantees for product performance. Any money back guarantee must be handled directly with the manufacturer. Call for shipping & handling info. Prices subject to change without notice. Shipping & Handling are not refundable.
NO REFUNDS
Returned products subject to a 20% restocking fee. 12864 FARMINGTON ROAD, LIVONIA, MI 48150
We cannot guarantee compatibility

DEALER INQUIRIES INVITED

PACKAGES

8-Up 2MB	435
8-Up 4MB	679
8-Up 6MB	919
8-Up 8MB	1155
HardFrame 32MB	559
HardFrame 48MB	595
HardFrame 64MB	739
HardFrame 82MB	779
HardFrame 40MB Quantum	739
HardFrame 80MB Quantum	989
HardFrame 100MB Quantum	1035
HardFrame 135MB Imprimis15ms	1399
Kronos 32MB	549
Kronos 48MB	585
Kronos 64MB	749
Kronos 82MB	769
Kronos 40MB Quantum	729
Kronos 80MB Quantum	979
Kronos 100MB Quantum	1025
Kronos135MB Imprimis 15ms	1389
Hurricane 030 882/25 4MB	2629
Hurricane030 882/25 4MB40Q	3159
Hurricane030 882/25 4MB80Q	3259
Impact A2000-2/0 40MB Q	799
Impact A2000-2/0 42MB SyQuest	1199
Impact A2000-2/0 48MB	649
Impact A2000-2/0 80MB Q	1049
Impact A2000-2/0 100MB Q	1095
Impact 2000-2/2	549
Impact A2000-2/2 40MB Q	899
ImpactA2000-2/2 42MB SyQuest	1449
Impact A2000-2/2 48MB	899
Impact A2000-2/2 80MB Q	1299
Impact A2000-2/2 100MB Q	1339
FastCard 32MB	499
FastCard 48MB	529
FastCard 64MB	649
FastCard 84MB	699
FastCard 158MB	1449
FastCard 40MB Qntm	699
FastCard 80MB Qntm	1069
FastCard 100MB Qntm	1245
FastTrack 32MB	710
FastTrack 40MB Qntm	899
FastTrack 48MB	739
FastTrack 64MB	879
FastTrack 80MB Qntm	1279
FastTrack 82MB	910
FastTrack 100MB Q	1449
FastTrack 158MB	1499
FrameBuffer FrameCapture 1MB	769
Meta4 2MB	475
Meta4 4MB	749
OverDrive 40Q	725
OverDrive 80Q	999
RC4 2000 512K (4MB max)	269
RC4 A500 512K (4MB max)	349
Spirit Inboard512K(1.5MB max)	319
Spirit Inboard 1MB	410
Spirit Inboard 1.5MB	499
Spirit SIN 500 512KB(2MB max)	379
StarBoard II 512K	359
StarBoard II 1MB	449
StarBoard II 2MB	669
SupraRam A2000 4MB	715
SupraRam A2000 6MB	959
SupraRam A2000 8MB	1210
Synergy 500 Case 64MB	829
Synergy 500 Case 158MB	call
Trumpcard 32MB	499
Trumpcard 48MB	529
Trumpcard 64MB	649
Trumpcard 84MB	699
Trumpcard 158MB	
Trumpcard 40MB Qntm	659
Trumpcard 80MB Qntm	910
Trumpcard 100MB Qntm	955
Trumpcard 500 32MB	559
Trumpcard 500 48MB (28MS)	579
Trumpcard 500 40MB Qntm	719
Trumpcard 500 80MB Qntm	969
Trumpcard500 100MB Qntm	1015
Trumpcard SyQuest & 1 cartridge	959
WordSync 32MB	499
WordSync 48MB	529
WordSync 64MB	679
WordSync 82MB	719
WordSync 40MB Quantum	679
WordSync 80MB Quantum	929
WordSync 100MB Quantum	975
WordSync135MB Imprimis15ms	1339

Let us put a custom package deal together for you! Please call M-F, 9-5 EDT

Assemble yourself and save money!

HARDWARE

Hard Drive Case for 2 5.25" HH w/ 60w power supply & fan	79
Mounting Bracket 3.5" in 5.25" bay	11
Supra Internal Modem (A2000)	139
Supra External Modem	129
USR HST Courier9600 extrnl modem	659

ACCELERATOR BOARDS

A3001-4MB/0	2799
A3001-4MB/40Q	3149
A3001-4MB/80Q	3599
Hurricane 68030	see packages
Impact A2000-030/25	929
Impact A2000-030/25-882/25	1449
Impact A2000-030RAM/4	1799
Impact A2000-030RAM/8	3299
Infinity Machine	call
Midget Racer w/68020	349
MidgetRcerw/68020/68881-16	519

DRAM

1 Mbx1 80ns	16
1 Mbx1 100ns	16
256KBx1 150ns	6
256Kbx4 100ns	20
256Kbx4 120ns	19
256Kbx4 120ns ZIP	19
256Kbx4 100ns ZIP	19

DRAW TABLETS

Kurta	call
A Pro Draw 12x12 w/cursor	499
Easyl 500	329

DRIVES (FLOPPY)

Amig-a-tosh	195
Amig-a-tosh Plus	245
Chinon A2000 Internal 3.5" floppy	99
FlexiData FD-10	139
FlexiData FD-20	249
Twin Drive	259
UniDrive	145
UniDrive Enhanced	159

DRIVES (HARD)

650 MB Read/Write Optical External Case w/pwr & fan 95ms Sony Mechanism 4599

650 MB Cartridge 329

Quantum & SyQuest Sale!

20MB Seagate ST-125N 3.5"40ms	call
32MB SeagateST-138N 3.5"40ms	319
32MB SeagateST-138N-1 3.5"28ms	call
40MB Quantum 3.5" 19/12ms	499
42MB SyQuestRemvbl 5.25"25ms	699
42MB SyQuest Cartridge	109
48MB Seagate ST-157N 3.5"	349
48MB SeagateST-157N-1 3.5"28ms	380
62MB Seagate ST-177N 3.5"	call
62MB SeagateST-277N 5.25"40ms	515
80MB Quantum 3.5" 19/12ms	749
84MB Seagate ST-1096N 3.5"	call
84MB SeagateST-296N 5.25"28ms	615
90MB 3.5" Fujitsu SCSI	999
100MB Quantum 3.5" 19/12ms	795
135MB 3.5" Imprimis 15ms	1159
136MB 3.5" Fujitsu	1259
182MB 3.5" Fujitsu	1489
200MB 3.5" Imprimis	call

EXP CHASSIS

Exp. Chassis A500	159
Exp. Chassis A1000	179
Exp.Chassis A500 or A1000 w/pwr	239
Subsystem 500	249
Subsystem 1000	call

GENLOCKS

Amigen	149
Gen/One	595
ProGen	369
Magni 4004	1389
MiniGen	call
ScanLock	895
SuperGen	669
SuperGen 2000s	call

MEMORY

8 Up! DIP (OK)	185
Meta4 2-4MB RamCardA2000 OK	179
Meta4 2-4MB Trumpcard500 OK	179
MicroMegs (A501 substitute)	159
MiniMegs 1000 512K	310
MiniMegs 1000 1MG	439
MiniMegs 1000 2MG	624
MiniMegs 500 512K	299
MiniMegs 500 1MG	399
MiniMegs 500 2MG	599
MaxiMegs	call
RC4 RamCard A2000 (OK)	199
RC4 w/case,pwr & A500adpt(OK)	280
StarBoard II	269
StarBoard II Upper Deck	49
SupraRam A500	149
SupraRam A2000 2MB	475
ProRam A2000 2MB (8MB max)	639
SpiritInboard A500 or A1000(OK)	229
Spirit A500 SIN	269

MIDI/SOUND

A.M.A.S.	135
Golden Hawk A2000 Int Midi	75

MONITORS

Magnavox 515	call
Mitsubishi DiamonScan 14	529
Moniterm Viking 1	call
NEC 3D	649

PRINTERS

Abaton Quickstep Postscript Compatible Laser (uses Weitek RISC chip - FAST)	3349
Canon PJ1080A Color Ink Jet	519
CanonBubbleJet 360dpi/132clmn	799
Everex Laser HP compat	call
Fujitsu LED Postscript	call
HP PaintJet	call
Laser Express	2199
Okimate 20	155
Panasonic 1124	359
Sharp JX-730 13.5"Color Ink Jet (180x180 dpi)	call
Star NX-1000R Rainbow Color	259
Xerox 4020 Color Ink Jet	1139

SCANNERS



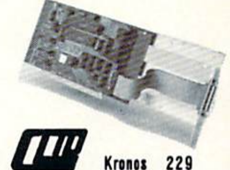
Han-D-Scan 310

100, 200, 300, or 400 DPI
Up to 16 grey levels
Includes Diamond Paint Program
Scan Width 4.13"

Cannon Scanner	call
Prof Scan & Sharp 8.5x11 color	call

SCSI

Fireball Hard Card 90MB	1159
Fireball H.C. 136MB	1449
Fireball H.C. 182MB	1689
Fireball H.C. OMB	219
HardFrame 2000	249
Impact A2000-2/0	299
Impact A2000-HC/30	call
Impact A2000-HC/40Q	789
Impact A2000-HC/80Q	1159
Impact A2000-HC/100Q	1495
Impact SQ44-RHD	call
Advanced Autoboot EPROMS	110
Impact WT-150 Streaming Tape	849
Impact A500-HD/20m	599
Impact A500-HD/30	759
Impact A500-HD/40Q	949
Impact A500-HD/45	899
Impact A500-HD/80Q	1399
Impact A500-HD/100Q	call
Impact A500-2/0	70
Impact A500-2/2	299
Infinity Machine	call



Kronos 229

Supports removable media
Non DMA CLTD reports up to 891K transfers using Imprimis
Connect up to 7 computers to one drive

C ltd reports 891KB/sec with Imprimis

OverDrive	199
StarBoard II SCSI Module	99
Supra 500/1000 HardDrives	call
Synergy 500	219
Trumpcard	159
Trumpcard 500	219
Tiny Tiger II 90MB	1149
Tiny Tiger II 136MB	1429
Tiny Tiger II 182MB	1679
Tiny Tiger II Host Adapter	125

WORD SYNC 179

New from Supra - Best Brackets 16 bit interface, non-DMA Disk Perf 2 test, 508K read, 289K write with Quantum 80 s.

VIDEO

Color Splitter	89
Flicker Fixer	479
FlickOff	389
Frame Buffer Frame Capture(OK)	599
FrameGrabber	529
Live! 1000	249
Live! 500	285
Live! 2000	319
Panasonic WV1410 Camera	189
Rainbow 16mm Lens w/variable iris	49

Actual shipping costs on hardware

Palette Printer $25 with purchase of any color printer

DYNAMIC DUO!





DIGIPAINT V3 THE ULTIMATE PAINT PROGRAM! $69

DIGIVIEW GOLD SIMPLY THE BEST! $139

Combine the best video digitizer and the hottest HAM paint program with a Panasonic WV1410 camera, variable lens and a CS-1 copy stand for the most complete graphics workstation ever!

COMPLETE PACKAGE LIST $779

OUR PRICE $479

Offer expires 12/31/89



BRIWALL

SOLID PRODUCTS & SOLID SUPPORT
PO Box 129/58 Noble Street
Kutztown, PA 19530

Toll-Free 24 Hour Order Line 1-800-638-5757

24-Hour Order Line Outside USA
1-215-683-5433

24-Hour FAX Line - 1-215-683-8567

Customer Service - 1-215-683-5433

Technical Support - 1-215-683-5699

PLEASE COME VISIT US!
Monday - Friday 9AM-6PM EST
Saturday 9AM - 12 Noon EST

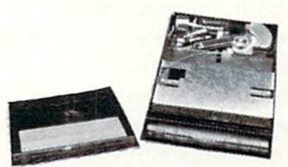
VISA MasterCard

!We Have Gift Certificates!

FREE NEWSLETTER SUBSCRIPTION WITH EVERY ORDER

GVP

GREAT VALLEY PRODUCTS INC.



IMPACT A2000 SQ44
44 MB Removable Cartridge Winchester Disk Drive
Autoboot from a FFS Partition
Automatic "Diskchange" Command
25 ms ave. access time
1:1 Interleave Capability
SCSI Interface

Impact A2000-030/16 - Impact A2000-030/25
4 MB/8 MB Daughterboard
Sockets for Boot EPROMS
Built-in hard disk controller
Socket for 68881/82 FPU
Asynchronous Design

SHIPPING POLICY: All ORDERS received before 3PM EST will normally be shipped within 2 business days. Out of stock items will be shipped by the same shipping method as original order, normally within 3 or 4 business days. All UPS shipments are sent SIGNATURE REQUIRED/NO DRIVER RELEASE. ADD the following shipping charges to your TOTAL software order.

UPS: Ground $4.00 (cont USA ONLY); Air/Rush $7.00 (includes Puerto Rico/Hawaii); Overnight $12.00 + $2.50 per item (must be received by 12 NOON).

PRIORITY MAIL: USA $4.00 (includes APO/FPO); Canada/Mexico $6.00; Other Foreign $4.00 Handling + Actual Shipping + Insurance.

ORDERING INSTRUCTIONS: For your convenience, you can place a phone order 24 HOURS/ 7 DAYS A WEEK on our TOLL—FREE LINE 1-800-638-5757. Outside the USA, please use (215) 683-5433. Price, availability and compatibility checks are also welcome on our order line, Monday thru Friday, 9:30AM-4:30PM EST. AFTER HOURS, Orders Only, Please! When placing an order, please specify your computer model, home & daytime phone number, shipping address, charge card number, expiration date & name of bank.

ACCEPTED PAYMENT METHODS: We welcome payment by PREPAID (by Personal Check or Money Order), MASTERCARD, VISA, SCHOOL PURCHASE ORDERS, COD orders are welcome for established Briwall Customers Only ($4.00 additional). All payments must be in USA DOLLARS. There is no Surcharge for Credit Cards and your card is NOT charged until we ship!

RETURN POLICY (for software and accessories ONLY): We have a liberal return policy to better service your needs. If within 15 days from the time you receive an item, you are not satisfied with it for any reason, you may return it to us for either a refund, exchange or open credit. REFUNDS ARE SUBJECT TO A 10% RESTOCKING FEE PER ITEM RETURNED ($5.00 MINIMUM PER ITEM). EXCHANGES/OPEN CREDITS will gladly be issued for the full purchase price of the item. DEFECTIVE Items, Hardware items and Special Order items will be replaced with the same item only.

TECHNICAL SUPPORT (M-F - 9:30AM-5PM EST) We do our very best to help you with your product selections, before you order and after you receive your product. General questions, price, compatibility with your computer, etc. will be handled by our order staff at the time you place your order. BUT, if you have specific, detailed questions about a product, printer, compatibility questions, etc., you will get the most help from our TECHNICAL SUPPORT LINE 215 683-5699.

HELP KEY

The techie talks turkey to untangle your troubles.

By Louis R. Wallace

Scientific Graphing

Q: *I have been looking for a scientifically oriented graphing program for quite some time, but I have failed so far. What I need is data graphs, best fit curves, linear regression, and so on. Have you heard of anything like that for the Amiga?*

Benis Babusis
Downey, CA

A: While I can't think of anything specific, a couple of "maybes" come to mind. One that I know of is Descartes! (Mindware International, 110 Dunlop St. W., Barrie, Ontario L4M 5R3, Canada). This is a scientific, programmable graphing package with a fair number of math functions, including some calculus features, such as derivatives. You can create graphs of your data sets and save them as IFF images that can be used in paint or desktop-publishing programs.

Another possibility is I.C.E. (King Publishing, 921-32nd St., Sioux City, IA 51104), which creates custom programmable calculators with a built-in BASIC-like language that supports some data graphing. Besides general math and trig features, the programming language has commands like CORL (returns correlation coefficient), MEAN and STANDARD DEVIATION. Using I.C.E., you could create dedicated calculators for your needs.

Misplaced FORMAT

Q: *I have a problem using the FORMAT command from the CLI. Under 1.2, you could type:*

FORMAT DRIVE DF1: NAME DISKNAME

and it would format a disk in drive 1. Whenever I try to use FORMAT under 1.3, I get an "unknown command" error message. The weird part is that it works fine from the Workbench using the Initialize option. Was the CLI FORMAT command removed in 1.3?

S. Whitehall
Akron, OH

A: You can still use FORMAT from the CLI in 1.3, but the command was moved from the C: directory to the System directory. Just type:

SYS:SYSTEM/FORMAT DRIVE DF1: NAME DISKNAME

and the CLI will get the FORMAT command from the System drawer on whatever drive you are using as your Workbench.

Quick Can Be Slow

Q: *Has MicroSoft ever released an Amiga version of their QuickC? I saw it listed in the* AmigaWorld *Software Buyer's Guide (December '88), but so far I haven't been able to buy it.*

J. Elam
Dunwoody, GA

A: To date, the only Amiga product that MicroSoft has released is Amiga Basic. I have heard of possible ports of some MicroSoft products to the Amiga, but so far these remain merely rumors.

Better Bridges

Q: *I have an A2000HD with an A2088 Bridgeboard. Can I boot MS-DOS directly from my hard disk? Will Commodore upgrade the PCWindows software to handle EGA graphics?*

P. Heinrich
Eugene, OR

A: When booting with the Bridgeboard you can bypass your MS-DOS floppy disk. The trick is to use the /s option with the FORMAT command when you format your MS-DOS hard disk. This will install the proper MS-DOS files on the disk, making the hard disk bootable. After formatting, copy all your MS-DOS files to the hard disk so they will be available on bootup.

As for EGA compatibility, I haven't heard of any plans to upgrade the Bridgeboard to support EGA display modes via the Amiga, and I doubt we will see such an upgrade any time soon. For now, you can install an EGA graphics card in one of the A2000's PC slots and connect an EGA compatible monitor to the card. Such a two-monitor system has the advantage of the Bridgeboard display updating at full speed.

Population Growth

Q: *I want to upgrade my A500's memory and have seen ads for 1.5 megabyte boards with 0K. Would I have to buy the RAM for such a board, or would the board already have the 1.5 megabytes so I wouldn't have to add any RAM?*

V. Nhan Lam
Arncliffe, Australia

A: The 0K means the board has no RAM on it; you will have to buy the chips yourself and plug them into the board. Boards are sold empty so that the customer can shop around for the best RAM price.

Hit a Gusher

Q: *In reference to "Gone Dry" (Help Key, September '89, p. 92), you can order ink cartridges for the Canon PJ1080A from Canon USA. Call the main office at 516/488-6700 and ask where the nearest Canon office is in your area.*

J. Tice
Oxford, AL

A: Thanks Jerry! ■

FEMME FATALE

The digital puzzle for adults!

GOOD CLEAN ADDICTIVE FUN by



$34.95 ppd. cont. US NY & NJ add tax

All NEW and Featuring :

- 10 exquisite photos digitized in full color.
- 5 difficulty levels (25, 40, 64, 80 and 100 tiles).
- Digitized feminine audible assistance.
- Large, uncluttered full screen images.
- Load/Save game options, Hints, Undo, Status.
- Choose from our superb library of digitized data disks or use your own Low, Med., Interl. or Hi-res images.
- Demonstration disk & discount coupon available for only $2.00.

(Include a signed statement that you're 18+ years old).

GRAPHIC EXPRESSIONS
P.O.Box 110028 Nutley NJ 07110 USA (201)661-0408

Circle 270 on Reader Service card.

Don't let those finger aerobics get you down! There's an easier way to change between your mouse and joystick, instantly with just a touch of a button. It's the handiest switchbox around.

MOUSE MASTER

(602) 322-6100

$39.95

plus shipping & handling.
MC, Visa, COD's welcome



1135 N. Jones Blvd. • Tucson, AZ 85716

Circle 293 on Reader Service card.

INTEGRATE
A VCR WITH YOUR AMIGA

NOW FOR $180 YOU CAN CONTROL YOUR VCR TO DISPLAY LIVE VIDEO ON YOUR COMPUTER SCREEN FOR APPLICATIONS SUCH AS:

1. A DATABASE THAT CAN DISPLAY BOTH COMPUTER DATA AND VIDEO CLIPS AS COULD BE USED BY REAL ESTATE AGENTS, OR FOR COLLECTIONS OF STAMPS OR PRODUCT LINES HANDLED, ETC.
2. INTERACTIVE TRAINING PROGRAMS (SIMILAR TO INTERACTIVE VIDEODISC) WHERE SPEED OF ACCESS IS NOT TOO IMPORTANT OR WHEN YOU WISH TO TEST YOUR WORK BEFORE COMMITTING IT TO VIDEODISC.
3. SIMPLE VIDEO EDITING USING TWO VCR'S
4. GAMES USING REALISTIC TV-TYPE VIDEO INSTEAD OF GRAPHIC FIGURES.

EDU-VID'S NEW IR REMOTE CONTROLLER PLUGS INTO THE PARALLEL PORT OF THE AMIGA AND WILL LEARN THE IR CONTROL CODES FOR ANY VCR, TV, CD, ETC. YOUR AMIGA CAN THEN DO ANYTHING YOU COULD DO WITH YOUR REMOTE.

SEND A LARGE, STAMPED, SELF-ADDRESSED ENVELOPE FOR FULL DETAILS OF WHAT IT CAN AND CANNOT DO TO:

Edu-Vid Research

PO BOX 149 PEMBINA, ND 58271

International Championship Wrestling

Are you ready for the best in the world??

Featuring:

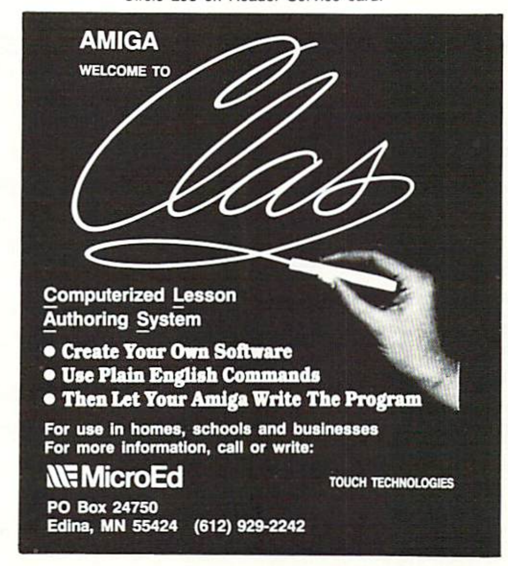
- Many moves including: Figure 4 Leg Lock, Airplane Spin, run the ropes, flying elbow, shoulder tackle, Atomic Drop, Body Slam, Power Slam, Kicks, Punches, and many, many more. . .
- Climb the ring ropes to really punish your opponent!
- Each wrestler has his own unique "death hold" and posing routine (just like on TV).
- Over 300 frames of animation per wrestler, digitized sound.
- 1 or 2 players, and computer demo modes. 4 skill levels.
- *$50.00 prize for the 1st ten players to defeat the Champ at Contest Level!*

Just $25.95 + $2.50 shipping/handling
(CA res. add sales tax)
Digital Wizards, Inc.
9307 Carlton Hills Blvd. Santee, CA 92071
(619) 449-5218

Circle 290 on Reader Service card.

AMIGA

WELCOME TO



Computerized Lesson Authoring System

- **Create Your Own Software**
- **Use Plain English Commands**
- **Then Let Your Amiga Write The Program**

For use in homes, schools and businesses
For more information, call or write:

MicroEd TOUCH TECHNOLOGIES

PO Box 24750
Edina, MN 55424 (612) 929-2242

PIC-MAGIC™

(Orders shipped Via UPS)

CLIP ART PACKAGE

$85 U.S.



250 High Quality Images
Very Large IFF Bitmaps
10 Full Floppy Disks.

Images in the pak include:

Christmas Graphics · Sports Car Graphics · Sports Scenes · Universal Advertising Graphics Eye Grabbers and much more (CALL).

Credit Card Orders Call: 1-800-387-8967
Outside USA call: Tel: (416) 322-6119
Fax: (416) 489-1620

Joe's First Company

OR SEND CHEQUE OR MONEY ORDER TO: JOE'S FIRST COMPANY, INC.
208 GLENAYR ROAD
TORONTO, ONTARIO.
CANADA M5P 3C3

Circle 277 on Reader Service card.

AMIGA P.D. APPLICATIONS

Some Great Public Domain Applications Programs for the Amiga. Disks include:

CC-907 Great Fonts!
Over 40 fonts available for the Amiga. From giant to tiny fonts. Also included are many font utilities.

CC-909 Home Applications
Includes Deluxe Grocery List Construction Set, Address Book, DB-Wiz: Database Wizard, Supermort: Loan Amortization Calculator, more.

CC-910 Science & Education
Math Plot: 2D & 3D math formula plotting programs, Multi Dim: geometry demonstration tool, HP-IDC: HP calculator emulator, Air Foil: Aerodynamics CAD program, Weatherman: predicts the weather, and many more.

CC-914 Home & Business
BankN: Checking account database manager, House Inv.: Home inventory database, Financa: Financial calculation program, Your Money: Budgeting system for home or small business, Scalc: Spreadsheet program, more.

CC-930 Business Collection 1
HyperBase: Sophisticated database, Library: Freeform text file database, MemoPad: Datebook, appointment calendar and reminder book all in one, Project Manager: Elaborate interactive mgmt. tool and many more.

CC-931 Plans CAD
Fast, versatile drafting package. This 2D CAD program is loaded with features and is of commercial quality.

All Disks ONLY $5.00 Each!

Send check or money order to:
Chiron Conceptions, Inc.
PO Box 19474
Jacksonville, FL 32245

Foreign orders add $2.00 per disk for Air Mail delivery.
Free catalog of over 160 P.D. disks available upon request!

Circle 294 on Reader Service card.

These games are so fun, we hate to label them educational (but they are).

Computational Software Solutions

Introduces:

Tracker's Quest
Fourteen games to enhance and test how well you remember, PLUS rudimentary music.

Tumbling Geometries
How is your sense of balance? Gravity, friction, geometry, and strategy make this game a winner.

Give your children something to prepare them for life, not intergalactic warfare.



Prices: $34.95 each or $49.95 for both.



Call 1-800-826-1799, (503) 886-9075 outside US, for sales and information.

Circle 286 on Reader Service card.

ICONLAB 1.3
by HERMES

- All Icon/Brush Options (I→B, B→I, etc.)
- All Icon Data Options (Split, Join, etc.)
- Shows/Draws/Paints Icons in 2–16 colors.
- Shows and Loads all Disk Fonts.
- Reduces IFF Pictures to Icon Sizes.
- Reduces IFF Pictures to WorkBench Ones.
- Cuts/Shows/Saves IFF Pictures/Brushes.
- More! Amiga 500/1000/2000.

Send $35.00 (US) to:

A.G. KARTSATOS
8524 Caladesi Drive
Temple Terrace, FL 33637-7310, USA

Circle 273 on Reader Service card.

35mm COLOR SLIDES

from your IFF or HAM files

• Brilliant Color • No Curvature Distortion

as low as $1/slide

Call or Write for order form, price list & sample

HAMMOND PHOTOGRAPHIC SERVICES
11280 Washington Place
Culver City, Ca. 90230
(213) 390-3010

MASTERPIECE PROFESSIONAL FONT COLLECTION©

20 DISK SET

The Largest Collection Of Fonts And Clip Art Available In A Single Package For The AMIGA.

100 DIFFERENT FONT STYLES
This doesn't mean 10 sizes of 11 fonts. It means 110 DIFFERENT Fonts.

LARGES SIZES • HI-RES
Specially Designed For Video Work. 95% of the fonts are over 100 pt. tall. Easily resized smaller.

PATTERN CLIP ART
141 hi-res DPaint II pages. There are thousands of objects and examples.

BRUSHES
2 Disks Full Of Color Brushes

COLORFONTS
4 Disks Full Of Colorfonts

100 PAGE MANUAL
Full Size Font Printouts

20 DISK SET - ONLY $199.00
VISA / MC • COD • Company Check

Contact your local AMIGA dealer or order direct from AROCK Computer Software
PO Box 731, Springfield, MO 65801
1-800-288-AROK



Elkon Enterprises

The Ultimate Hint Kit

Need help in an adventure game? Reach for the Ultimate Hint Kit! Including such features as; Walk-Thrus, Hi-Res Maps, and Character Editors. This three disk set has over 25 Walk-Thrus including help for Dungeon Master, FaeryTale , and most of the Sierra games. Also included is help for The Pawn, Bard's Tale Series. How about over 40 Hi-res Maps for Dungeon Master, FaeryTale, Bard's Tale and Bard's Tale II.The Ultimate Hint Kit also offers an added bonus of three different Character editors for Bard's Tale, Faerytale and Phantasie. This three disk set will answer most of your adventure questions! All of this for $19.95 plus $2.00 for shipping.

$19.95 — Elkon Enterprises, 4654 Mistletoe, Wichita Falls Tx 76310 — $19.95

MicroEd

Educational Software K thru ADULT

ALL CURRICULAR AREAS•INCLUDES RELIGIOUS PROGRAMS

SEND FOR A LIST OF OUR SOFTWARE

MicroEd, Incorporated
P.O. Box 24750
Edina, MN 55424
612-929-2242

Hypertext for the Amiga

Thinker HyperText/HyperMedia word processor for the creation and organization of information.

$80 Version 1.03 New Features

COD $5
30 day guarantee
No credit cards

"..stunning capabilities..simple to operate" "power and grace..." "..superbly crafted.." - Gary Gehman, Amiga Sentry, June 1989

The latest technology combines outline processing and word processing with a multimedia Hypertext engine. Link words, pictures, animations and spreadsheets. Thinker combines database concepts with word processing for maximum creativity.

Poor Person Software, Dept 10, 3721 Starr King Circle
Palo Alto, CA 94306 (415) 493-7234

MIDI-Mice

Software allows you to control virtually ANY VIDEO, MUSIC, or PAINT program from your MIDI Instrument

- ***Transform MIDI events into mouse and keyboard events***
- ***Fully programmable with instant recall and edit***
- ***Multitask on any model Amiga®, MIDI adaptor required***

Please send your check or money order of $85.00 to (California residents please add 6% sales tax)
Dealer Inquiries Invited
VIDI-Mice (Visual Interface) also available for $85.00

Tensor Productions
280 Mathilda Drive No. 9
Goleta, California 93117
Tel: 805-685-6245
Fax: 805-685-2994

Public Domain Software Resource

The New Amiga Public Domain Service that lets you ***Choose only the programs you want!*** Hundreds of programs available. Send now for our free catalog!

PDSResource
PO Box 7175, Loma Linda, CA 92354



Only $6.00 per Disk.

AUTHORIZED AMIGA SALES & SERVICE

AMIGA™

A500 REPAIR $65.00

We honor warranty work. We reserve the right to refuse work on excessively damaged units.

SALE PRICES

A501 RAM Card	154.95
3.5" External Drive	139.95
Mouse for 500, 1000, 2000	49.95
Supra 2400 Baud Modem	139.95
Internal 3.5" Drive for 2000	109.00
8UP (2MG) Board for 2000	450.00

CALL FOR OTHERS

WE CARRY PARTS, CHIPS, POWER SUPPLIES & ALL OTHER ACCESSORIES FOR YOUR COMMODORE & AMIGA.

(800) 962-4489 AMPEX SYSTEMS, INC. (404) 263-9190
5344 Jimmy Carter Blvd., Norcross, GA 30093

PELICAN WARE

PO Box 680, South Street, Plattekill, NY 12568

1-800-637-4286

RAM IT!!!

Microbotics Starboard II for the Amiga 500 and Amiga 1000
512K $329.00 1 Meg $409.00 2 Meg $639.00
Call for prices on 8-Up Ram card for Amiga 2000.

$97,500 A YEAR "HIDDEN IN YOUR COMPUTER?"

Find out! (9 years success.) FREE report.
Write: Ed Simpson
Dept. 771AW, Battle Ground, WA 98604-0771



Disqué ADULT PD !!

All Pictures High Quality Ham/IFF

Each Disk has Slide Show or Individual "Point & Click" Viewer

Now Available Disk #'s 1 * 2 * 3 * 4 * 5 * 6 * 7 * 8 * 9 * 10

ONLY 6.95 PER DISK plus $2.60 S&H/Order
5 disks or MORE add 50 cents per disk

Special: Order ALL 10 and get Special 11th disk FREE!

SEND TO: Disqué
P.O. Box 1161
Safety Harbor, FL 34695

PLEASE include a Statement that you are 18 years of age or older

NEW! Colorful IFF-HAM Sex Education Pictures

Two Disk Set

"ADULT SEXUALITY"

WITH PLAYER **$35**

The DigitalPub/257
1033 Peachtree Street N.E. Atlanta, GA 30309
You must sign a statement that you are 18 or older!

Make the most of your advertising investment! Reserve your space in the AmigaWorld InfoMarket today! Call Heather Paquette on the East Coast at 603-924-9471 or 1-800-441-4403. On the West Coast call Shelley Harmon at 415-328-3470.

100% Compatible statistics for
EARL WEAVER BASEBALL

YES, someone has finally done their homework and researched the past and present years in Baseball. Using statistics from many sources makes this a very thorough and complete, compiled statistic source. We also feature updated ballfields, a yearly schedule and a play calendar so you can play the games as they really were. We now have in stock 1919, 1949, 1952, 1959, 1961, 1969, 1975, 1976, 1978, 1985, 1987, 1988 and soon to be released 1989.

For more info. or to place an order, write:

GMCP SOFTWARE
Suite 52-217
4095 US Route 1
Monmouth Junc., NJ 08852

or call
(201) 938-6399

Disks are $19.95 each
Add $2.50 shipping
Visa/MC add 4%
NJ residents add 6% tax

EARL WEAVER BASEBALL trademark of Electronic Arts

Fred Fish Disks $2.00!

$2.00 each for five or more. $2.50 each for less than five.

We also carry a wide selection of other Public Domain, bulk disks, and hardware.

For a free disk catalog or to place an order call or write to:
Amy Today. 640 WillowGlen Rd. Santa Barbara, CA. 93105. 805-687-5643

JUST RELEASED AMIGA

AMIGA UPGRADE #1. . .New 1 MEGABYTE "FATTER" Agnus chip (#8372) allows user more "chip" memory for use in GRAPHICS, MUSIC or VIDEO. This upgrade is an absolute must for present AMIGA owners. Price is $109.50 with instructions.

AMIGA UPGRADE #2. . .A501 UPGRADE RAM BOARD FOR THE AMIGA 500 IS IN STOCK. THIS UNIT FITS RIGHT INTO YOUR A500. Price is $139.50 and includes instructions.

AMIGA UPGRADE #3. . .NEW field upgrade to latest revision (4.5) which includes "auto-boot" etc. 1.3 KICK-START ROM (315093-02) is $27.95. The "GARY" chip if needed for your Amiga 2000 is $17.95. Included are instructions, information.

WE STOCK ALL AMIGA (AND COMMODORE) CHIPS AT SUPER LOW PRICES
• SEND FOR CATALOG ON EXCLUSIVE PRODUCTS •

VISA 1-800-292-7445 (toll free)
THE GRAPEVINE GROUP, INC.
35 CHARLOTTE DRIVE WESLEY HILLS, NY 10977
(914) 354-4448 FAX (914) 354-6696

Prices subject to change • Commodore is a registered trademark • Dealer pricing available



Associates, Inc.

The DISK Specialists—Distributors

Featuring: C. ITOH BLUE 3.5" DSDD 100% Warranty. MINIMUM PURCHASE—400 DISKS. LABELS ARE EXTRA! $18 per 400.

.99 per disk

Smaller quantities available at different pricing. Sony & other brands & quantities are available. Prices subject to change without notice. No COD's for this offer. Credit cards add 5%. Call/write for S/H fees, Disk Pricing & AMIGA Product Catalogs. Corporate/Educational/Dealer Inquiries invited. Limited offer: SPECIFY — OFFER #1089.

MCP Associates, Inc., PO Box 6260, Dept. AW, L.I.C., NY 11106-1933
Tel: 1-718-956-9000 *Exceptional Service & Quality* **FAX: 1-718-956-9028**

$50 Reward!

$500 Grand Prize!

Fame!

You could be $50 richer and lots more famous. All it takes is an Amiga (we trust you've got one), a bit of talent, and a hankering for the big time. Just send us your best animation. If judged worthy for the AmigaWorld Animation Video, we'll send you $50, and stick you in our new (it ain't even finished yet!) video. And if we think your animation is the best, why, we'll mail you off a check for $500.

You must be the creator, and must have created the work on an Amiga. Send it off to us on standard 880K-byte floppies, and become a part of the coolest group of Amiga animators ever assembled. We will assume the right to put your animation on our video, but you retain all other rights. Please include on disk an IFF screen specifying names of involved parties as well as products used. Then blast your stuff off to:

AmigaWorld Animation Contest
80 Elm Street
Peterborough, NH 03458

AmigaWorld is a publication of IDG Communications, the world's largest publisher of computer-related information. IDG Communications publishes over 90 computer publications in 33 countries. Fourteen million people read one or more IDG Communications publications each month. IDG Communications publications contribute to the IDG News Service offering the latest on domestic and international computer news. IDG Communications publications include: ARGENTINA'S *Computerworld Argentina*; ASIA'S *Communications World, Computerworld Hong Kong, Computerworld Malaysia, Computerworld Singapore, Computerworld Southeast Asia, PC Review;* AUSTRALIA'S *Computerworld Australia, Communications World, Australian PC World, Australian Macworld*; AUSTRIA'S *Computerwelt Oesterreich*; BRAZIL'S *DataNews, PC Mundo, Micro Mundo*; CANADA'S *Computer Data;* CHILE'S *Informatica, Computacion Personal*; DENMARK'S *Computerworld Danmark, PC World Danmark*; FINLAND'S *Mikro, Tietoviikko*; FRANCE'S *Le Monde Informatique, Distributique, InfoPC, Telecoms International;* GREECE'S *Micro and Computer Age*; HUNGARY'S *Computerworld SZT, PC Mikrovilage*; INDIA'S *Dataquest*; ISRAEL'S *People & Computers Weekly, People & Computers Bi-Weekly*; ITALY'S *Computerworld Italia*; JAPAN'S *Computerworld Japan*; MEXICO'S *Computerworld Mexico*; THE NETHERLANDS' *Computerworld Netherlands, PC World Benelux*; NEW ZEALAND'S *Computerworld New Zealand*; NORWAY'S *Computerworld Norge, PC World Norge*; PEOPLE'S REPUBLIC OF CHINA'S *China Computerworld, China Computerworld Monthly*; SAUDI ARABIA'S *Arabian Computer News*; SOUTH KOREA'S *Computerworld Korea, PC World Korea*; SPAIN'S *CIMWORLD, Computerworld Espana, Commodore World, PC World Espana, Comunicaciones World, Informatica Industrial*; SWEDEN'S *Computer Sweden, Mikrodatorn, Svenska PC World*; SWITZERLAND'S *Computerworld Schweiz*; UNITED KINGDOM'S *Computer News, DEC Today, ICL Today, LOTUS, PC Business World*; UNITED STATES' *AmigaWorld, CD-ROM Review, CIO, Computer Currents, Computerworld, Digital News, Federal Computer Week, FOCUS Publications, inCider, InfoWorld, Macintosh Today, MacWorld, Computer + Software News, (Micro Marketworld/Lebhar-Friedman), Network World, PC World, Portable Computer Review, Publish!, PC Resource, PCGames, RUN, Windows*; VENEZUELA'S *Computerworld Venezuela*; WEST GERMANY'S *Computerwoche, Information Management, PC Welt, Run, PC Woche, RUN.*

Manuscripts: Contributions in the form of manuscripts with drawings and/or photographs are welcome and will be considered for possible publication. *AmigaWorld* assumes no responsibility for loss or damage to any material. Please enclose a self-addressed, stamped envelope with each submission. Payment for the use of any unsolicited material will be made upon publication. All contributions and editorial correspondence (typed and double-spaced, please) should be directed to *AmigaWorld* Editorial, 80 Elm St., Peterborough, NH 03458; telephone: 603-924-9471. **Advertising Inquiries** should be directed to Advertising Offices, IDG Communications/Peterborough, Inc., 80 Elm St., Peterborough, NH 03458; telephone: 800-441-4403. **Subscription problems or address changes:** Call 1-800-525-0643 (in CO, 1-303-447-9330) or write to *AmigaWorld*, Subscription Dept., PO Box 58804, Boulder, CO 80322-8804. **Problems with advertisers:** Send a description of the problem and your current address to: *AmigaWorld*, 80 Elm St., Peterborough, NH 03458, ATTN.: Sue Maizel, Customer Service Representative.

List of Advertisers

* This advertiser prefers to be contacted directly

This index is provided as an additional service. The publisher does not assume liability for errors or omissions.



If you have any questions or concerns about advertisers in *AmigaWorld*, please contact: **Susan Maizel, Customer Service Representative, *AmigaWorld* Magazine, 80 Elm Street, Peterborough, NH 03458. As a service to its readers,** *AmigaWorld* will periodically publish the names of companies who are having difficulties meeting their customer obligations or who have gone out of business. Through our customer service representative, *AmigaWorld* assists readers with problems they may have with advertisers. Readers are advised to contact *AmigaWorld* before dealing with these companies: **Computer Best, FutureSoft Applications. However,** *AmigaWorld* does not assume any liability for advertiser's claims.

To Receive FREE Product Information



TEAR
out the perforated card. Please print or type your name and address where indicated.

CIRCLE
the numbers on the card that correspond to the reader service numbers on the advertisements that interest you.

ORDER
a one year subscription to AmigaWorld by circling 500 on the card.

MAIL
the card with your check, money order or U.S. currency to:
AmigaWorld
Reader Service
Management Department
P.O. Box 5170
Pittsfield, MA 01203-5170
Or, you may request billing.

LOOK FOR
your subscription in 10 to 12 weeks.

REMEMBER
to put the proper postage on the card.

READER SERVICE

November card valid until January 31, 1990.

☐ Mr.

☐ Mrs.

☐ Ms. Name ______________________

Company ______________________

Title ______________________

Address ______________________

City/State/Zip ______________________

Telephone ______________________

A. Do you own an Amiga?
☐ 1. Yes ☐ 2. No

B. If no, will you purchase one of the following?
☐ 3. Amiga 500
☐ 4. Amiga 2000
☐ 5. Amiga 2500
☐ 6. Other (please specify) ______
☐ 7. I currently have no purchasing plans.

C. Would you purchase an Amiga magazine which had a bound-in disk of demo programs, tutorials, etc.?
☐ 8. Yes ☐ 9. No

D. Which software packages will you purchase in the next 12 months? (Please choose all that apply.)
☐ 10. Entertainment
☐ 11. Word Processing
☐ 12. Communications
☐ 13. Spreadsheets
☐ 14. Home Productivity
☐ 15. Programming
☐ 16. Video
☐ 17. Database Management
☐ 18. Financial Management
☐ 19. Graphics
☐ 20. Education
☐ 21. Music
☐ 22. Animation
☐ 23. Sound/Speech
☐ 24. CAD/CAM
☐ 25. Other

E. Which peripherals will you purchase in the next 12 months? (Please choose all that apply.)
☐ 26. Monitor
☐ 27. Dot Matrix Printer
☐ 28. Modem
☐ 29. Memory Expansion
☐ 30. 3½" Floppy Drive
☐ 31. Hard Disk Drive
☐ 32. Gen Lock or Frame Grabber
☐ 33. Music Hardware
☐ 34. Color Printer
☐ 35. Laser Printer

F. If you are not a subscriber, please circle 499 on this card.

G. If you would like a one year subscription to AmigaWorld (12 issues), please circle 500 on this card. Each subscription is $29.97. Canada and Mexico $38.97, Foreign Surface, $49.97, Foreign Airmail $84.97 (U.S. Funds Drawn on U.S. Bank). Orders from outside of North America must be prepaid. Please allow 10–12 weeks for delivery.

1	6	11	16	21	201	206	211	216	221	401	406	411	416	421
2	7	12	17	22	202	207	212	217	222	402	407	412	417	422
3	8	13	18	23	203	208	213	218	223	403	408	413	418	423
4	9	14	19	24	204	209	214	219	224	404	409	414	419	424
5	10	15	20	25	205	210	215	220	225	405	410	415	420	425
26	31	36	41	46	226	231	236	241	246	426	431	436	441	446
27	32	37	42	47	227	232	237	242	247	427	432	437	442	447
28	33	38	43	48	228	233	238	243	248	428	433	438	443	448
29	34	39	44	49	229	234	239	244	249	429	434	439	444	449
30	35	40	45	50	230	235	240	245	250	430	435	440	445	450
51	56	61	66	71	251	256	261	266	271	451	456	461	466	471
52	57	62	67	72	252	257	262	267	272	452	457	462	467	472
53	58	63	68	73	253	258	263	268	273	453	458	463	468	473
54	59	64	69	74	254	259	264	269	274	454	459	464	469	474
55	60	65	70	75	255	260	265	270	275	455	460	465	470	475
76	81	86	91	96	276	281	286	291	296	476	481	486	491	496
77	82	87	92	97	277	282	287	292	297	477	482	487	492	497
78	83	88	93	98	278	283	288	293	298	478	483	488	493	498
79	84	89	94	99	279	284	289	294	299	479	484	489	494	499
80	85	90	95	100	280	285	290	295	300	480	485	490	495	500
101	106	111	116	121	301	306	311	316	321	501	506	511	516	521
102	107	112	117	122	302	307	312	317	322	502	507	512	517	522
103	108	113	118	123	303	308	313	318	323	503	508	513	518	523
104	109	114	119	124	304	309	314	319	324	504	509	514	519	524
105	110	115	120	125	305	310	315	320	325	505	510	515	520	525
126	131	136	141	146	326	331	336	341	346	526	531	536	541	546
127	132	137	142	147	327	332	337	342	347	527	532	537	542	547
128	133	138	143	148	328	333	338	343	348	528	533	538	543	548
129	134	139	144	149	329	334	339	344	349	529	534	539	544	549
130	135	140	145	150	330	335	340	345	350	530	535	540	545	550
151	156	161	166	171	351	356	361	366	371	551	556	561	566	571
152	157	162	167	172	352	357	362	367	372	552	557	562	567	572
153	158	163	168	173	353	358	363	368	373	553	558	563	568	573
154	159	164	169	174	354	359	364	369	374	554	559	564	569	574
155	160	165	170	175	355	360	365	370	375	555	560	565	570	575
176	181	186	191	196	376	381	386	391	396	576	581	586	591	596
177	182	187	192	197	377	382	387	392	397	577	582	587	592	597
178	183	188	193	198	378	383	388	393	398	578	583	588	593	598
179	184	189	194	199	379	384	389	394	399	579	584	589	594	599
180	185	190	195	200	380	385	390	395	400	580	585	590	595	600

READER SERVICE

November card valid until January 31, 1990.

☐ Mr.

☐ Mrs.

☐ Ms. Name ______________________

Title ______________________

Address ______________________

City/State/Zip ______________________

Telephone ______________________

A. Do you own an Amiga?
☐ 1. Yes ☐ 2. No

B. If no, will you purchase one of the following?
☐ 3. Amiga 500
☐ 4. Amiga 2000
☐ 5. Amiga 2500
☐ 6. Other (please specify) ______
☐ 7. I currently have no purchasing plans.

C. Would you purchase an Amiga magazine which had a bound-in disk of demo programs, tutorials, etc.?
☐ 8. Yes ☐ 9. No

D. Which software packages will you purchase in the next 12 months? (Please choose all that apply.)
☐ 10. Entertainment
☐ 11. Word Processing
☐ 12. Communications
☐ 13. Spreadsheets
☐ 14. Home Productivity
☐ 15. Programming
☐ 16. Video
☐ 17. Database Management
☐ 18. Financial Management
☐ 19. Graphics
☐ 20. Education
☐ 21. Music
☐ 22. Animation
☐ 23. Sound/Speech
☐ 24. CAD/CAM
☐ 25. Other

E. Which peripherals will you purchase in the next 12 months? (Please choose all that apply.)
☐ 26. Monitor
☐ 27. Dot Matrix Printer
☐ 28. Modem
☐ 29. Memory Expansion
☐ 30. 3½" Floppy Drive
☐ 31. Hard Disk Drive
☐ 32. Gen Lock or Frame Grabber
☐ 33. Music Hardware
☐ 34. Color Printer
☐ 35. Laser Printer

F. If you are not a subscriber, please circle 499 on this card.

G. If you would like a one year subscription to AmigaWorld (12 issues), please circle 500 on this card. Each subscription is $29.97. Canada and Mexico $38.97, Foreign Surface, $49.97, Foreign Airmail $84.97 (U.S. Funds Drawn on U.S. Bank). Orders from outside of North America must be prepaid. Please allow 10–12 weeks for delivery.

1	6	11	16	21	201	206	211	216	221	401	406	411	416	421
2	7	12	17	22	202	207	212	217	222	402	407	412	417	422
3	8	13	18	23	203	208	213	218	223	403	408	413	418	423
4	9	14	19	24	204	209	214	219	224	404	409	414	419	424
5	10	15	20	25	205	210	215	220	225	405	410	415	420	425
26	31	36	41	46	226	231	236	241	246	426	431	436	441	446
27	32	37	42	47	227	232	237	242	247	427	432	437	442	447
28	33	38	43	48	228	233	238	243	248	428	433	438	443	448
29	34	39	44	49	229	234	239	244	249	429	434	439	444	449
30	35	40	45	50	230	235	240	245	250	430	435	440	445	450
51	56	61	66	71	251	256	261	266	271	451	456	461	466	471
52	57	62	67	72	252	257	262	267	272	452	457	462	467	472
53	58	63	68	73	253	258	263	268	273	453	458	463	468	473
54	59	64	69	74	254	259	264	269	274	454	459	464	469	474
55	60	65	70	75	255	260	265	270	275	455	460	465	470	475
76	81	86	91	96	276	281	286	291	296	476	481	486	491	496
77	82	87	92	97	277	282	287	292	297	477	482	487	492	497
78	83	88	93	98	278	283	288	293	298	478	483	488	493	498
79	84	89	94	99	279	284	289	294	299	479	484	489	494	499
80	85	90	95	100	280	285	290	295	300	480	485	490	495	500
101	106	111	116	121	301	306	311	316	321	501	506	511	516	521
102	107	112	117	122	302	307	312	317	322	502	507	512	517	522
103	108	113	118	123	303	308	313	318	323	503	508	513	518	523
104	109	114	119	124	304	309	314	319	324	504	509	514	519	524
105	110	115	120	125	305	310	315	320	325	505	510	515	520	525
126	131	136	141	146	326	331	336	341	346	526	531	536	541	546
127	132	137	142	147	327	332	337	342	347	527	532	537	542	547
128	133	138	143	148	328	333	338	343	348	528	533	538	543	548
129	134	139	144	149	329	334	339	344	349	529	534	539	544	549
130	135	140	145	150	330	335	340	345	350	530	535	540	545	550
151	156	161	166	171	351	356	361	366	371	551	556	561	566	571
152	157	162	167	172	352	357	362	367	372	552	557	562	567	572
153	158	163	168	173	353	358	363	368	373	553	558	563	568	573
154	159	164	169	174	354	359	364	369	374	554	559	564	569	574
155	160	165	170	175	355	360	365	370	375	555	560	565	570	575
176	181	186	191	196	376	381	386	391	396	576	581	586	591	596
177	182	187	192	197	377	382	387	392	397	577	582	587	592	597
178	183	188	193	198	378	383	388	393	398	578	583	588	593	598
179	184	189	194	199	379	384	389	394	399	579	584	589	594	599
180	185	190	195	200	380	385	390	395	400	580	585	590	595	600

READER SERVICE

To Receive FREE Product Information



TEAR
out the perforated card. Please print or type your name and address where indicated.

CIRCLE
the numbers on the card that correspond to the reader service numbers on the advertisements that interest you.

ORDER
a one year subscription to AmigaWorld by circling 500 on the card.

MAIL
the card with your check, money order or U.S. currency to:
AmigaWorld
Reader Service
Management Department
P.O. Box 5170
Pittsfield, MA 01203-5170
Or, you may request billing.

LOOK FOR
your subscription in 10 to 12 weeks.

REMEMBER
to put the proper postage on the card.

READER SERVICE



PLEASE USE
FIRST CLASS
LETTER
POSTAGE

AmigaWorld
Reader Service
Management Department
P.O. Box 5170
Pittsfield, MA 01203-5170

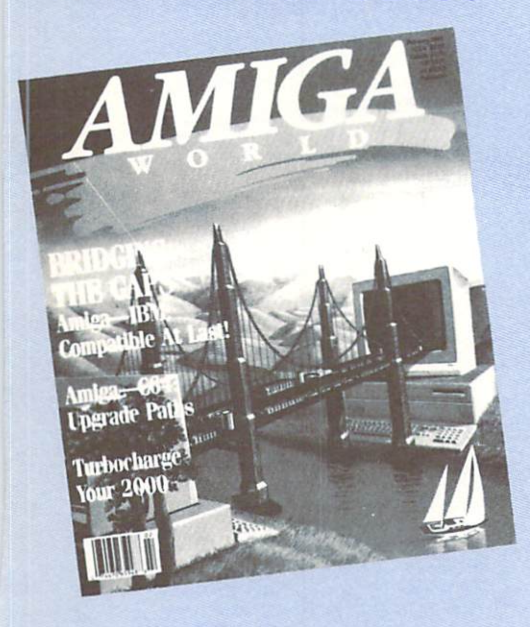


PLEASE USE
FIRST CLASS
LETTER
POSTAGE

AmigaWorld
Reader Service
Management Department
P.O. Box 5170
Pittsfield, MA 01203-5170



Subscribe Now And Save 37% OFF The Cover Price



- *AmigaWorld*. . .the only high-quality Amiga-specific magazine on the market. It's as fresh and dazzling as the computer itself!
- *AmigaWorld*. . .where expert authors will lead you through the exciting and revolutionary features of the Amiga!
- *AmigaWorld*. . .helping you discover and utilize a whole new world of computer graphics and sounds!
- *AmigaWorld*. . .because creative computing was never so exciting and easy!

Get 12 Issues of AmigaWorld for $29.97. That's 37% Off The Basic Newsstand Price!

The IDG Communications Guarantee

As the world's largest publisher of computer-related information, we unconditionally guarantee your *AmigaWorld* subscription. If you're not completely satisfied, tell us. We'll refund the full price of your subscription—no questions asked.

YES! I want to save 37% off the newsstand rate. Enter my 12 issue subscription to *AmigaWorld* for the low subscription price of $29.97. If I'm not satisfied at any time, I will receive a full refund—no questions asked!

☐ Bill Me ☐ Payment Enclosed

Name ______________________________

Address ______________________________

City ______________ State __________ Zip __________

Please makes checks payable to *AmigaWorld*.
Canada & Mexico $38.97, Foreign Surface $49.97, Foreign Airmail $84.97 (U.S. Funds drawn on U.S. Bank). Prepayment is required on all Foriegn Surface and Foreign Airmail orders. All prices are 1 year only. Please allow 6–8 weeks for delivery.

AMIGA WORLD

49NE1

YES! I want to save 37% off the newsstand rate. Enter my 12 issue subscription to *AmigaWorld* for the low subscription price of $29.97. If I'm not satisfied at any time, I will receive a full refund—no questions asked!

☐ Bill Me ☐ Payment Enclosed

Name ______________________________

Address ______________________________

City ______________ State __________ Zip __________

Please makes checks payable to *AmigaWorld*.
Canada & Mexico $38.97, Foreign Surface $49.97, Foreign Airmail $84.97 (U.S. Funds drawn on U.S. Bank). Prepayment is required on all Foriegn Surface and Foreign Airmail orders. All prices are 1 year only. Please allow 6–8 weeks for delivery.

AMIGA WORLD

49NE1

YES! I want to save 37% off the newsstand rate. Enter my 12 issue subscription to *AmigaWorld* for the low subscription price of $29.97. If I'm not satisfied at any time, I will receive a full refund—no questions asked!

☐ Bill Me ☐ Payment Enclosed

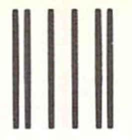
Name ______________________________

Address ______________________________

City ______________ State __________ Zip __________

Please makes checks payable to *AmigaWorld*.
Canada & Mexico $38.97, Foreign Surface $49.97, Foreign Airmail $84.97 (U.S. Funds drawn on U.S. Bank). Prepayment is required on all Foriegn Surface and Foreign Airmail orders. All prices are 1 year only. Please allow 6–8 weeks for delivery.





NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED
STATES



BUSINESS REPLY MAIL

FIRST-CLASS PERMIT NO. 1247 BOULDER, CO

POSTAGE WILL BE PAID BY ADDRESSEE

IDG Communications/Peterborough
AmigaWorld
P.O. Box 50365
Boulder, CO 80321-0365



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED
STATES

BUSINESS REPLY MAIL

FIRST-CLASS PERMIT NO. 1247 BOULDER, CO

POSTAGE WILL BE PAID BY ADDRESSEE

IDG Communications/Peterborough
AmigaWorld
P.O. Box 50365
Boulder, CO 80321-0365



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED
STATES

BUSINESS REPLY MAIL

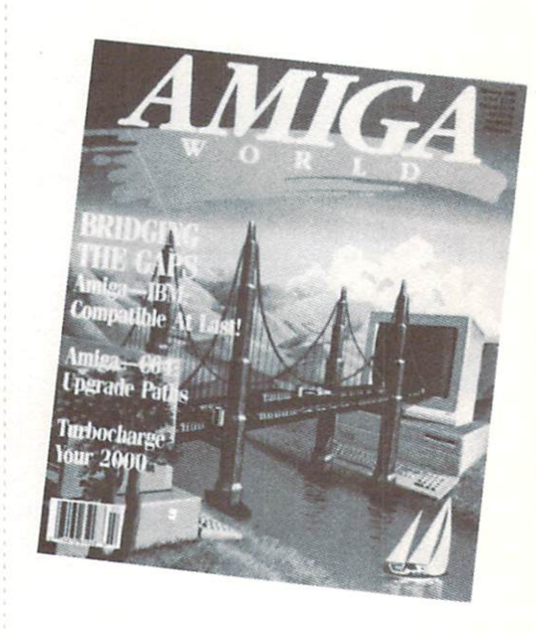
FIRST-CLASS PERMIT NO. 1247 BOULDER, CO

POSTAGE WILL BE PAID BY ADDRESSEE

IDG Communications/Peterborough
AmigaWorld
P.O. Box 50365
Boulder, CO 80321-0365



Subscribe Now And Save 37% OFF The Cover Price

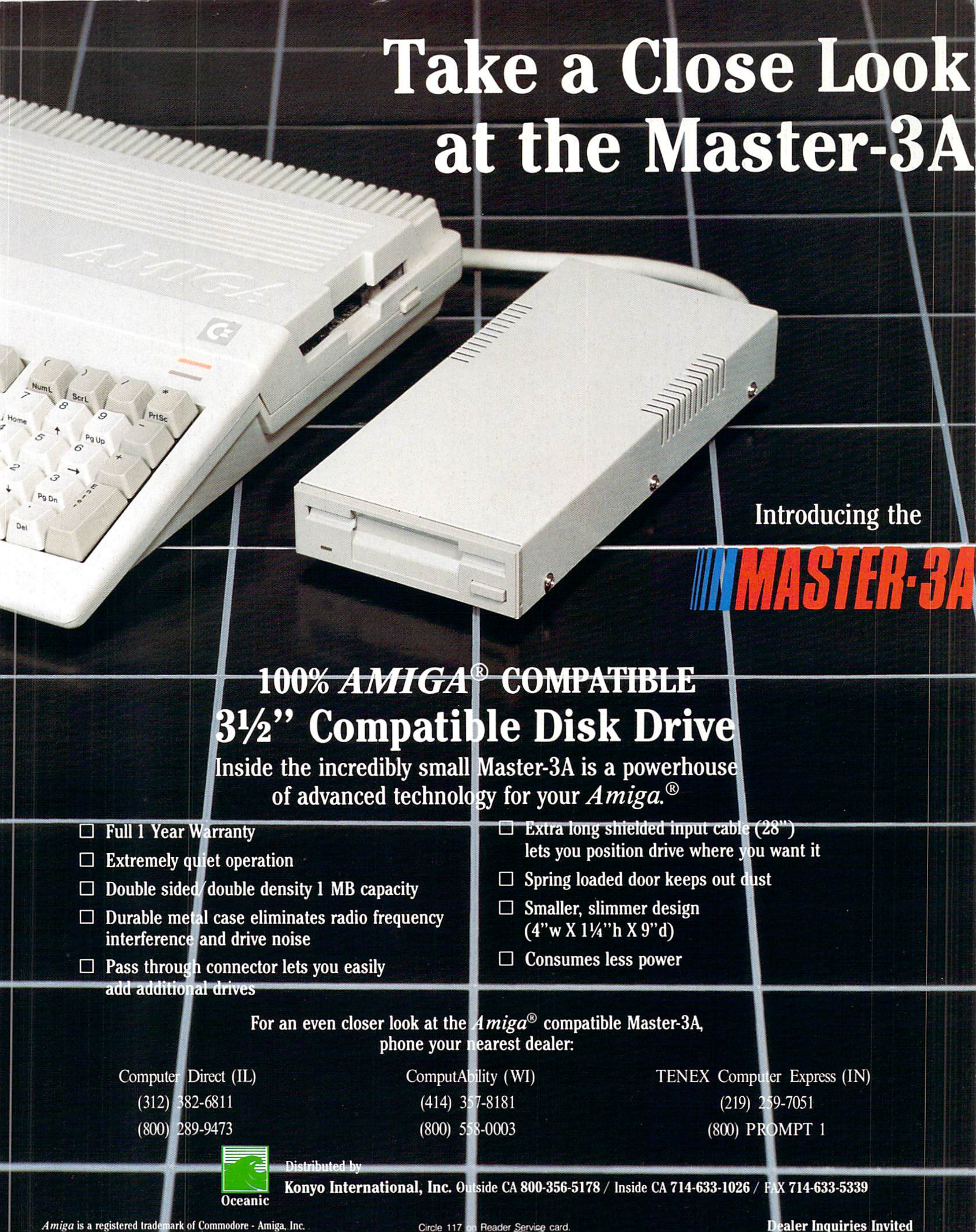


- *AmigaWorld*. . .the only high-quality Amiga-specific magazine on the market. It's as fresh and dazzling as the computer itself!
- *AmigaWorld*. . .where expert authors will lead you through the exciting and revolutionary features of the Amiga!
- *AmigaWorld*. . .helping you discover and utilize a whole new world of computer graphics and sounds!
- *AmigaWorld*. . .because creative computing was never so exciting and easy!

Get 12 Issues of AmigaWorld for $29.97. That's 37% Off The Basic Newsstand Price!

The IDG Communications Guarantee

As the world's largest publisher of computer-related information, we unconditionally guarantee your *AmigaWorld* subscription. If you're not completely satisfied, tell us. We'll



Take a Close Look at the Master-3A
AMIGA
Introducing the
MASTER-3A
100% AMIGA® COMPATIBLE
3½" Compatible Disk Drive
Inside the incredibly small Master-3A is a powerhouse of advanced technology for your Amiga.®
☐ Full 1 Year Warranty
☐ Extremely quiet operation
☐ Double sided/double density 1 MB capacity
☐ Durable metal case eliminates radio frequency interference and drive noise
☐ Pass through connector lets you easily add additional drives
☐ Extra long shielded input cable (28") lets you position drive where you want it
☐ Spring loaded door keeps out dust
☐ Smaller, slimmer design (4"w X 1¼"h X 9"d)
☐ Consumes less power
For an even closer look at the Amiga® compatible Master-3A, phone your nearest dealer:
Computer Direct (IL) (312) 382-6811 (800) 289-9473
ComputAbility (WI) (414) 357-8181 (800) 558-0003
TENEX Computer Express (IN) (219) 259-7051 (800) PROMPT 1
Oceanic
Distributed by
Konyo International, Inc. Outside CA 800-356-5178 / Inside CA 714-633-1026 / FAX 714-633-5339
Amiga is a registered trademark of Commodore - Amiga, Inc.
Circle 117 on Reader Service card.
Dealer Inquiries Invited